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ENVIRONMENTAL ASSESSMENT II
FOR THE PROPOSED

WESTPARK COMMERCIAL CENTER
BOISE, IDAHO

PREPARED FOR

PACIFIC RIM DEVELOPMENT COMPANY
SAN FRANCISCO, CA
MARCH, 1988

BY

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INTRODUCTION

This report summarizes the results of a second environmental assessment of the proposed Westpark Commercial Center properties. The first assessment was initiated on October 23, 1987, when Pacific Rim Development Corporation retained the services of the environmental consulting firm Special Resource Management, Inc. (SRM) to conduct a routine site investigation of the Westpark property. Along with the collection of basic soil engineering data, the first site investigation was intended to provide sufficient data to document the presence or absence of any hazardous materials on-site. As part of the investigation a series of soil and groundwater samples were collected for laboratory analysis. Analysis of one of the water samples suggested the possible presence of a chlorinated solvent at relatively low levels (SRM, 1987).

Special Resource Management, Inc. was authorized by Pacific Rim Development Corporation (PRDC) to conduct additional groundwater and soil testing in the area of monitoring well #1. This area was identified in the earlier screening assessment as being potentially contaminated with tetrachloroethene (Well #1 showed 738 ppb and soil #2 showed 1600 ppb).

The first assessment report contains an overview of the 50+ acre properties and a description of the field sampling methods and laboratory results. The detection of tetrachloroethene in Well #1 was the most significant finding of the first assessment. Other findings included: trace volatile petroleum products (old diesel) in Wells #1, 2, and 3; trace (.5 ppm) chloroform in soil sample #2; and several potential spill areas that warranted further assessment (SRM, 1987). This second report also includes the references sited in the first environmental assessment report, the sample results for the volatile petroleum product analysis and the verification sample results that were run on Well #1.

PURPOSE

The purpose of the second assessment was to obtain additional groundwater and soil data to better characterize the extent of tetrachloroethene contamination in the area of Well #1. The general uncertainty of the source and extent of contamination dictated a step-by-step method of investigation for the second site assessment. It was agreed that SRM would install ten to fifteen monitoring wells and obtain 20 to 30 soil samples in the area of Well #1. This level of effort was considered adequate to characterize the area if minor contamination was present. If a major plume or spill of tetrachloroethene existed, additional assessment would probably be required, but enough data would be available (13 to 18 wells and 20 to 30 soil samples) to design a cost effective strategy for assessing a major contamination problem and possibly identify the source of contamination.

The second investigation was to utilize standard EPA methods so that the resulting data would be of adequate technical content to support the evaluation of remedial alternatives. In addition, Parcels 2 and 5 were to be assessed in terms of whether they were contaminated or impacted by the contamination detected at Well #1.

ENVIRONMENTAL SAMPLING METHODOLOGY

Soil Sampling

Locations - The soil sampling locations selected for the second assessment were based on information garnered during the first assessment. SRM identified several areas within Parcel #1 where soils were discolored and where small amounts of solid waste had been dumped (SRM, 1987). These areas near Well #1 were selected for soil sampling to determine if they were potential sources of groundwater contamination. In addition, the area surrounding Well #1 was gridded and thoroughly sampled.

Soil sample locations are shown on the site maps in Appendix A. Appendix H provides a summary of the dates when samples were collected and the laboratory which analyzed the samples. Appendix D contains the laboratory reports for the soil samples.

The following summary groups the samples by the general collection method:

Non-Random Composite grab samples in potential spill areas -
NT1, NT2, NT4, LD1, LD2, BD1, BD2, LD1-1.5F, S-24, S-25
— Associated w/ ditches & canals

Composite Grid Samples Immediate to Well #1 -
S-9 through S-17

Composite Samples Outside Grid Near Wells #4, 5, 7, and 8 -
S-5, S-6, S-7, S-8

Auger Grab Samples at 1.5 feet near Well #1 -
S-18-1.5F, S-19-1.5F, S-20-1.5F

Grab Repeat of Soil #2, subsample location d -
S-21

Grab of Soil 5 ft. depth, Well #13 location -
S-22

A total of 31 soil samples were collected and submitted for analysis. Of these, 3 were splits sent to different laboratories (16a and NT2a, 24a) and one sample (BD-1) was sent to both laboratories for analysis (same sample, not a split). Therefore, 28 locations were sampled and 4 samples were analyzed by both laboratories. Seven (7) samples were sent to the Professional Service Industries Laboratory, Deer Park, Texas, and 2 samples were sent to SERCO Laboratories, St. Paul, Minnesota, for all the EPA priority pollutant volatile organic compounds (Method SW 8240) while 22 samples were analyzed by Analytical Laboratories, Boise, Idaho, for tetrachloroethene only.

Procedures. The procedures utilized for obtaining the soil samples were similar to those used in the first soil sampling effort. The sample handling procedures and laboratory analysis were conducted according to standard EPA methods. Most of the soil samples consisted of four subsamples composited. For all but three of the composite samples, the subsample consisted of two soil cores (0-6") taken side-by-side at the subsample location. The soil core was extracted using a seven-eighth inch diameter carbon steel-chrome plated probe. For two of the three composite samples not utilizing the core sampler (NT1, NT2), the subsample was obtained by removing the top two inches of soil and extracting 118 ml of soil in a stainless steel scoop four times. The four subsamples were composited and mixed in a stainless steel bowl. After briefly mixing, the sample was placed in a prelabeled glass sample jar and sealed with a teflon lined lid. After wiping the jar clean and checking the label for completeness, the samples were placed on ice in an ice chest.

Two different methods were utilized for identifying the 4 subsample locations for the composite soil samples. Five of the samples (NT2, NT4, LD1, LD2, LD1-1.5F) were in the bottom of irrigation or drainage ditches. A representative sample of the ditch bottom soil was obtained by taking the four subsamples in a straight line on 5 foot intervals in the bottom of the ditch. Subsamples for NT1 were also taken in a straight line, but they were taken down the west bank of the drainage ditch at 1 foot intervals starting from the fence line.

Five soil samples were taken at a depth of 1.5 feet to help assess whether soil contamination existed below surface soils (NT4, LD1-1.5F, 18-1.5F, 19-1.5F, 20-1.5F. S-22). For four of the samples, a four inch diameter soil auger was used to bore to 1.5 feet and then a stainless steel scoop was used to extract 472 ml of soil from the bottom of the bore hole (samples NT-4, 18-1.5F, 19-1.5F, and 20-1.5F). Sample LD1-1.5F was obtained by extracting two soil cores from four 1.5 foot bore holes adjacent to the four surface subsample locations for sample LD-1.

Soil sample 21 was obtained by extracting and compositing 12 soil cores in a 12" by 12" square. This sample is considered a grab since only a small area of soil was represented. Soil sample S-22 was a grab sample off of the hollow stem auger while drilling Well #13. It was soil taken from approximately the five foot level. Soil samples S-24 and S-24a were a composite of two locations within the base of the old grain silo. The soil floor base inside the silo lies approximately three feet below grade. The sample was collected by removing 2 inches of surface soil and collecting the sample with a shovel at a depth of 2-8 inches. Two locations within the silo were composited. Soil S-25 was a shovel grab sample from a pile of washed gravel dumped 29 feet east of the silo. A one foot hole was dug to the base of the pile and the sample was collected at the interface of the piled gravel and surface soil.

The remaining soil sample-subsample points (5 through 17) were identified at four equally spaced locations on a one meter arc centered at the sample location stake. The equally spaced locations were designated as the four points of the compass--North, South, East, and West. Figure 1 "Soil Sample Locations Utilizing the Arc Composite Method", illustrates this sampling method. It was utilized for the grid samples (9 through 17) and the four samples taken near wells #4, 5, 7, and 8 (samples 5-8).

Sample collection tools (core sampler, stainless steel bowls, auger, scoop) were cleaned according to the following procedures before taking each soil sample:

1) washed and scrubbed with distilled water and a non-phosphate detergent,

2) inspected for adhered soil particles and rewashed if necessary,

3) rinsed thoroughly with distilled water,

4) rinsed thoroughly with acetone,

5) rinsed thoroughly with hexane, and

6) shaken and let air dry until needed for sampling.

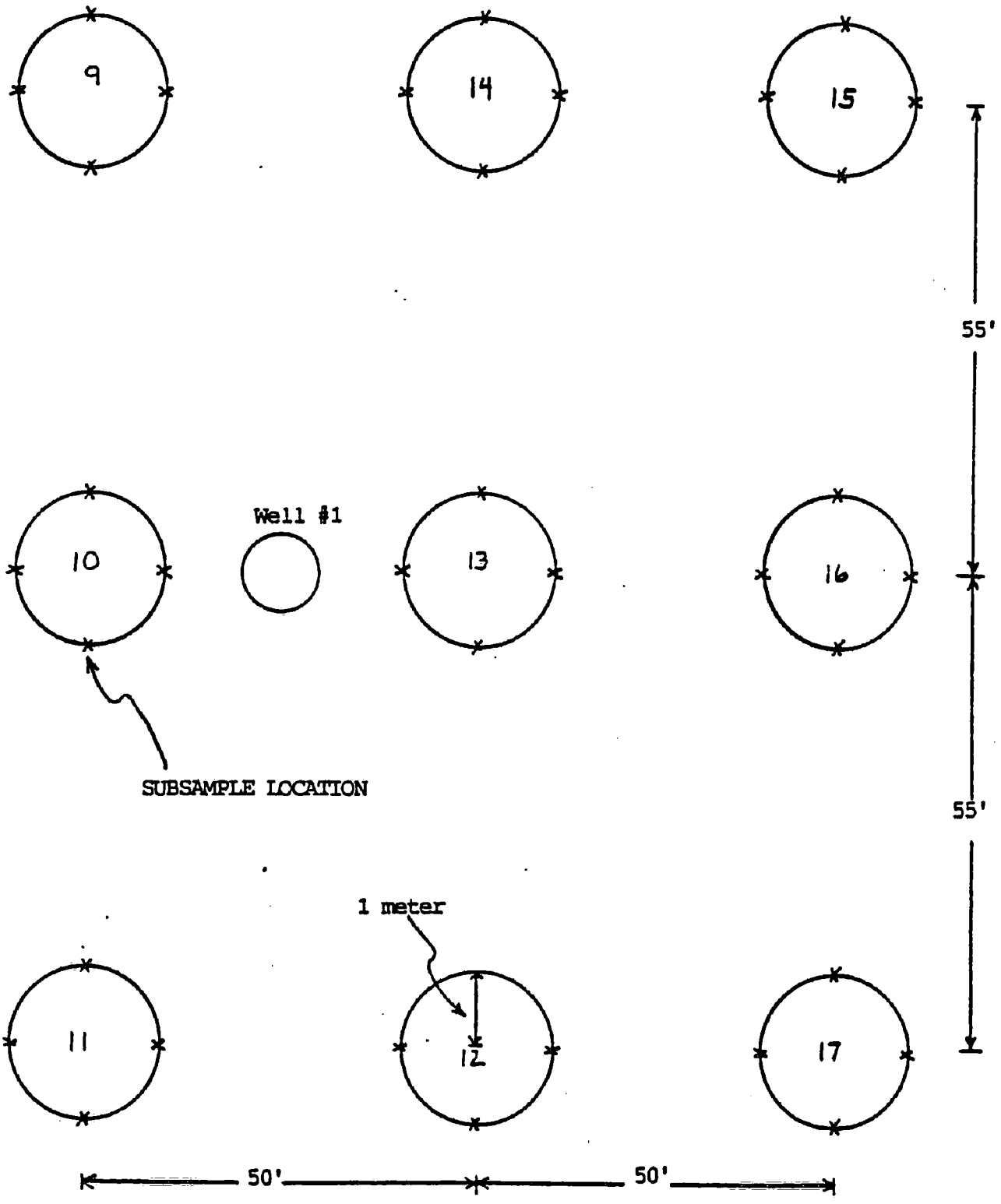


Figure 1
Soil Sample Locations Utilizing the Arc Composite Method

Clean PVC gloves were used for each sample collection. An equipment decontamination sample (WP-decon) was taken during soil sampling on 11/23/87 by running distilled water over the cleaned equipment and collecting it for laboratory analysis. It should be noted that the quantity of soil collected for each sample was sufficient to fill the sample jar (light pack with no headspace).

All of the samples (soil and water) collected from the Westpark site were considered to be environmental samples. Sample containers were placed immediately on ice in a steel ice chest, upon collection in the field. At the conclusion of field sampling, the iced samples were placed in locked storage under the custody of Bradley Harr or Mark Kraley until transferred for delivery to the appropriate laboratory.

The chain of custody record sheets were maintained throughout sample transfer. The originator signed the "Relinquished by" box while the person receiving custody signs in the adjacent "Received by" box and keeps the original. The original copy remained with the samples at all times. A copy of each chain of custody form is shown in Appendix G.

Groundwater Sampling

Monitoring Well Installation and Groundwater Sampling Methods. On November 20, 1987, five observation wells (SRM-4, 5, 6, 7 and 8) were drilled with a Mobile B53 hollow stem auger rig equipped with six inch auger flights. The wells were cased with two inch PVC casing and perforated with .020 factory slotted PVC pipe. Caps were installed at the bottom and no glue was used. Each well is perforated opposite gravel in a silt and clay matrix and a natural gravel pack was utilized. The annulus was sealed with about 6 to 20 inches of bentonite, backfilled with cuttings to within one foot of the surface, and sealed with a bentonite surface seal. A bentonite sample was taken during the installation of Well #7 and analyzed for tetrachloroethene (BG-001). No tetrachloroethene was detected in the bentonite.

On November 21, 1987, the wells were developed by hand bailing with a PVC bailer. To remove as much silt and clay as possible, the wells were surged by lowering the bailer to the bottom of the well and surging it vigorously several times each time the bailer was removed. Five gallons (which represents 5 to 10 well bore volumes) was removed from each well and stored in a drum for disposal later. Waters were tested for pH, conductivity, and temperature in the field using an Orion pH meter and a YSI conductivity meter. The field results are reported in Table 1. The bailer was decontaminated between wells by washing with a phosphate free detergent followed by distilled water, acetone and hexane rinses. Well 1 was also bailed to clean and further develop it.

Wells 1, 4, 5, 6, 7 and 8 were sampled on November 23, 1987, with a teflon bailer. Three well bore volumes were removed (and stored for later disposal) by bailing slowly at rates of from .05 to .15 gallons per minutes after which the wells were allowed to stand for five minutes before the sample was taken. The bailer was decontaminated between wells using the procedure described above. The samples were managed similar to the procedures discussed above for soil samples. Two VOA vials were filled for each sample. Samples were distributed to the two laboratories such that 20% went to PSI and 80% to A.A.

TABLE 1

WELL DEVELOPMENT FIELD PARAMETERS
November 21, 1987

Well	pH	Conductivity (umhos/cm)	Temperature (°C)
SRM-1	7.6	501	13.4
SRM-4	7.5	638	14.4
SRM-5	7.6	337	15.5
SRM-6	7.7	578	13.3
SRM-7	7.7	483	12.9
SRM-8	7.6	614	13.9

Well drilling permits were obtained from the Idaho Department of Water Resources on November 19, 1987 so that the three deep wells could be constructed (Wells 9, 10, & 11). The three deep wells were located so that Well 11 was on Parcel #5 and up gradient of Well 1; Well 9 was on Parcel 1 and directly down gradient of Well 1; and Well 10 was on Parcel 2 and slightly north of down gradient flow from Well 1.

Wells 9, 10, and 11 were drilled with the Mobil B53 drill utilizing air rotary and driving casing on December 3-5, 1987. Well logs and construction information are in Appendix J. The deep wells were drilled to the clay sediments underlying the aquifer gravels. The deep wells were installed by drilling and hammering 4 inch steel casing to approximately 20 feet and then drilling and hammering 3 inch steel casing through the 4 inch casing to the clay sediments at approximately 40 to 45 feet. The three inch casing was pulled after setting the 2 inch PVC well casing. A 5 foot sump was located below the screened interval in each well. The bottom 15 feet of the aquifer was screened in Wells 10 and 11 while the bottom 20 feet were screened in Well 9. A natural sand and gravel pack was utilized from the bottom of the well to the 20 foot level. The 4 inch steel casing was left in the borehole and the angular space was sealed with a bentonite slurry (0 to 18 ft.). Two foot of #8 silica sand was placed in the angular space (18 to 20 ft.) prior to sealing with the bentonite.

The drilling equipment and casing materials were steam cleaned before starting each well. The deep wells were developed as described earlier for the shallow wells. The development water and drilling water and cuttings were containerized pending laboratory analysis so that proper disposal could be arranged.

The deep wells were sampled on 12-7-87 after purging three well volumes. Well 11 was purged by bailer while Wells 9 and 10 were pumped (less than 1 gallon/minute). A KV-30 submersible centrifugal pump was dedicated to each of the wells (9 and 10). Samples were extracted after letting the wells recover from purging for five minutes. A clean teflon bailer was used to extract the samples. The samples were taken at approximately the 32 to

34 foot level which would be near the center of the screened interval of the wells. A duplicate sample was taken at Well 9 so that analysis could be completed by both laboratories being utilized. In addition, a sample was taken at the bottom of Well 9 (sample WP-Well 9b) to assess whether there was any layering of tetrachloroethene in the aquifer.

On December 15, 1987, Well #12 was installed. The hole had been augered earlier but due to equipment problems it was not completed until 12-15-87. Well #12 (shallow 17 ft.) was constructed such that the saturated zone is screened and cased with stainless steel (Johnson (304), 0.02 inch slots). A PVC riser is used in the unsaturated zone. Well #13 was drilled and installed on 12-16-87. It is constructed of PVC casing. The hollow stem auger was rejected at three locations near Well #13 and after the third rejection, a backhoe was used to penetrate the calachie and hard packed surface gravel (0-7 feet). The hole was then completed with the hollow stem auger. Wells 12 and 13 are shallow wells installed to a depth of about 17 feet. The bottom five feet of the wells are screened (12-17 foot interval). They were completed and sealed as described earlier for Wells 4, 5, 6, 7, and 8.

An auger decontamination sample was obtained after steam cleaning the auger before drilling Well #13. Clean distilled water was run through the hollow area of the auger and collected in a VOA vial. The sample (WP-Decon #2) was analyzed for tetrachloroethene. No tetrachloroethene was detected (mdl=5ppb).

Well #12 was sampled on 12/16/87 while well #13 was sampled on 12/17/87. The sampling procedures were the same as discussed earlier for the shallow wells (i.e., 3 well volumes purged; clean teflon bailer).

Since most of the wells were sampled shortly after their installation and in different laboratory lots, it was decided that six wells would be sampled on the same day and submitted to two laboratories for analysis. These samples were collected on 12/18/87 using the methods previously discussed for each well (samples - Well 1d, 5d, 7d, 9d, 12d, 13d, 1e, 5e, 7e, 9e, 12e

and 13e). Samples 1d to 13d were submitted to Analytical Laboratories while samples 1e to 13e were submitted to Professional Service Industries, Inc.

Upon review of the laboratory results from the 12/8/87 well sampling, it was determined that four additional shallow wells would be installed to better characterize the extent of the plume. The uncertainly of the plumes origin was a key factor in locating new wells since several businesses in the immediate area were potential users of tetrachloroethene.

Permission was obtained to drill on private property to the west of Westpark since no information existed in this area (Wells 14 and 15). The drill rig augers were steam cleaned prior to drilling each well. Well 16 was located on the east side of Milwaukee to better define the upgradient end of the plume. Well #17 was located on the far west edge of Parcel #1 in line with the expected flow of contaminants.

The wells were installed on January 9th and 10th in accordance with the methods described for the other shallow wells except that a larger drill rig was utilized (Central Mining Equipment-75, 8 inch hollow stem auger). Wells 14, 16, and 17 were constructed with stainless steel in the saturated zone (similar to Well #12) while Well 15 was constructed with PVC. Wells 14, 16 and 17 are screened at the 12-17 foot interval while Well 15 is screened from 7-17 feet. The wells were developed on 1/12/88 and sampled on 1/13/88.

All of the Westpark monitoring wells have locking caps. Wells 1 and 4 through 17 are completed with protective 6 inch steel casing and concrete pads (see photograph documentation). The monitoring well locations are show in Figure 2.

PVC casing is generally not recommended by the EPA for monitoring well construction at RCRA (Resource Conservation and Recovery Act) hazardous waste sites where long term monitoring for volatile organics is required. The reasons given by EPA include deterioration of PVC wells over the 30 year monitoring period and that PVC may absorb constituents or leach constituents into the well water. EPA's policy is reasonable and prudent for thirty year RCRA monitoring wells at commercial hazardous waste disposal sites.

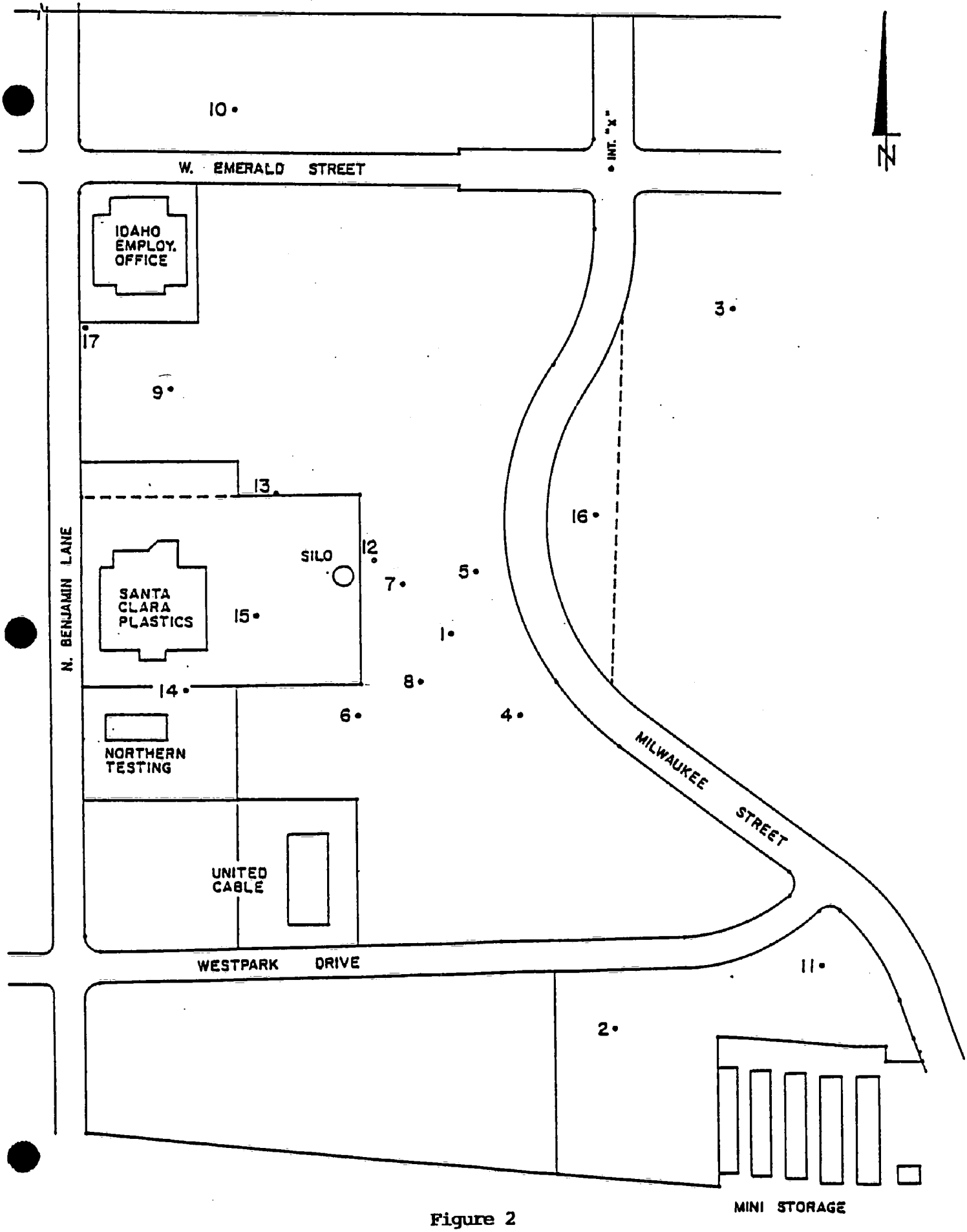


Figure 2

MONITORING WELL LOCATIONS AT WESTPARK

For general site characterization the EPA allows for site-specific discretion in selecting monitoring well construction materials. In general, the policy states that the well casing and screen materials should be selected with due consideration to geochemistry, anticipated lifetime of the well, cost, chemical parameters to be monitored, and other site-specific factors (U.S. EPA, 1986). Given the circumstances of the Westpark site investigation--site assessment, one or two sampling events, and possible near-term commercial construction in the area, PVC casing is the preferred material. Any long term monitoring wells should be constructed utilizing stainless steel in the saturated zone. The sample results from the stainless steel wells (Wells #12, 14, 16, and 17) installed at Westpark correlate well with the results of nearby PVC wells. There is no evidence indicating that the PVC wells are not yielding good sample results.

Table 2, "Monitoring Well Installation Summary", summarizes the well completion and sampling dates. It should be noted that the first three wells #1, 2, and 3 were drilled to approximately 13 to 14 feet. The remaining shallow wells were to be drilled to approximately 17 feet, however, sand heaving in Well #6 pushed the casing up to 12 feet resulting in the screened interval being at approximately 7.5 feet to 12 feet.

Aquifer Testing and Plume Modeling

On January 7, 1988, a small sampling pump was installed in Well 11 and the well was pumped at a rate of 1 gpm for 20 minutes. After 4 minutes the well stabilized with an average drawdown of about 0.196 feet indicating a specific capacity of about 5.1 gpm per foot of drawdown. A transmissivity of about 10,200 gpd/ft can be calculated from that specific capacity. Results of this pumping suggested a need for a larger pump to test the aquifers. The well was retested with an air operated diaphragm pump on January 12, 1988, for 35 minutes at a rate of 3.5 gpm. A longer test was planned, but mechanical problems and cold weather limited the test. Results of the testing on January 12, suggest a transmissivity of 12,700 gpd/ft and a storativity of 0.0000007 which is lower than what would be expected possibly due in part to poor well efficiency.

TABLE 2

MONITORING WELL INSTALLATION AND SAMPLING SUMMARY

MON. WELL NUMBER	DATE COMPLETED	DATE SAMPLED	TOTAL DEPTH (ft) (approx.)	SCREEN INTERVAL (ft) (approx.)
1	10/29/87 am	10/29/87 pm 11/02/87 11/23/87 12/18/87	14	9-14
2	10/29/87 am	10/29/87 pm	13	8-13
3	10/29/87 am	10/29/87 pm	13	8-13
4	11/20/87	11/23/87	17	12-16.5
5	11/20/87	11/23/87 12/18/87	17	12-16.5
6	11/20/87	11/23/87 12/31/78	12	7.5-12
7	11/20/87	11/23/87 12/18/87	17	12-16.5
8	11/20/87	11/23/87 12/31/87	17.5	12.5-17
9	12/05/98	12/07/87 12/18/87	45.0	20-40
10	12/03/87	12/07/87	45.0	25-40
11	12/04/87	12/07/87	43	23-38
12	12/15/87	12/16/87 12/18/87	17	12-17 (SS)
13	12/16/87	12/17/87 12/18/87	17	12-17
14	1/09/88	1/13/88	17	12-17 (SS)
15	1/09/88	1/13/88	17	7-17
16	1/10/88	1/13/88	17	12-17 (SS)
17	1/10/88	1/13/88	17	12-17 (SS)

SS - Johnson 304 Stainless Steel casing and screen (0.02 inch slots), all others are PVC casing

Well 8 was tested on January 13, 1988, using the diaphragm pump. Owing to problems with frozen hoses the pumping rate was higher than the 1 gpm which was planned and the pump started drawing air after about one minute. A decision was made to run the test at a constant drawdown for long enough to pump 55 gallons by allowing the pump to draw air, thus maintaining the water level at the end of the suction hose. A transmissivity of 46,000 gpd/ft was calculated.

Aquifer test data, water level information and estimated dispersivities supplied by a Montana Bureau of Mines and Geology hydrologist familiar with data from similar areas of Oregon and Nevada, (Brian Harrison, personal communication 1/88) were used in a model published by Kent and others (Kent, 1985), in an attempt to quantify the age and extent of the contamination. Dispersivities for sediments such as the terrace gravels found at the Westpark site would be expected to range from 0.3 ft. to 2 ft. Typically when trying to fit sparse data to a model the dispersivities are increased by one or two orders of magnitude. In this case, the best fit was obtained by increasing the estimated values by a factor of about 20.

A fairly good fit with the model was obtained for the concentrations found in wells 9 and 17 for a spill of two drums occurring about one year ago. Estimated contours of equal concentration are shown in Figure 3) Longer and shorter time periods with varying quantities were tried without success. The model predicted a fairly rapid drop in concentration on the northwest end of the plume. Given the current concentration at Well 17 this appears unlikely and it suggests that given further assessment a better fit could be obtained with this model. Based on the concentrations shown in Figure 3, approximately 40 to 50 gallons of tetrachloroethene is in the groundwater at present. Allowing for volatilization and adsorption on soil, a reasonable estimate of the amount originally spilled is probably about 2 drums (110 gallons).

Miscellaneous Sampling

Locations - Several miscellaneous samples were collected throughout the course of this assessment. In general, the samples were for QA/QC purposes, grab samples of unknown substances or debris, or grab samples for assessing the proper disposal methods for materials generated during the drilling and sampling of wells. Appendix H - "Sample Collection Summary" contains the sample collection information and SRM sample numbers for the miscellaneous samples. Appendix F contains the laboratory results for the samples.

Procedures - Standard EPA methods were utilized for collecting, handling, and storing the miscellaneous samples collected. The drummed well development and purge water was either sampled when it was being added to the drum (Drum 2 and 3) or after the drum had been filled (Drum 1). All contained well drilling and sampling materials are stored at the Westpark site.

The grab samples of debris, bentonite, and water were collected and placed in glass jars with teflon lined lids. The samples were placed on ice until delivered to the appropriate laboratory. VOA vails were utilized for the water samples.

Table 3 summarizes the miscellaneous samples that were collected.

TABLE 3

MISCELLANEOUS SAMPLE COLLECTION SUMMARY

SRM Sample #	Date	Comment
SRM-WP-DB-001	11/12/87	Grab sample of rubber sack material found by Well #1
SRM-WP-DB-002	11/12/87	Grab sample of rubber sack material found by Well #1
SRM-WP-W-1003	11/12/87	Grab sample of puddled water in ditch east of NET
SRM-WP-BG-001	11/20/87	Bentonite powder used to seal wells
SRM-WP-Decon	11/23/87	Soil sampling equipment decontamination blank
SRM-WP-Drum 1	12/2/87	Grab sample from composite of Wells 1,4,5,6,7,8
SRM-WP-Drum 2	12/2/87	Grab sample from composite of Wells 1,4,5,6,7,8
SRM-WP-Drum 3	12/2/87	Well development water from #11
SRM-WP-Well #10 Pit	12/2/87	Grab samples from well #10 mud pit
SRM-Well #9 Pit	12/4/87	Grab sample from well #9 mud pit
SRM-WP-Decon #2	12/16/87	Auger equipment decontamination blank after steam cleaning
SRM-WP-SCP-SEW	12/22/87	Sewer manhole on Benjamin, South of Idaho Employment Office 4:40 p.m.

LABORATORY RESULTS AND DISCUSSION

A total of 28 soil locations and 17 groundwater monitoring wells were sampled. Eight wells have been sampled more than once. Three laboratories were used for the soil and water sample analysis. Two of the labs utilized full EPA QA/QC procedures and analyzed for all the priority pollutant volatile organic compounds--Professional Service Industries (PSI), Deer Park, Texas and SERCO Laboratories, St. Paul, Minnesota. The third lab, Analytical Laboratories (A.A.), Boise, Idaho, analyzed for tetrachloroethene only. Analytical Laboratories used standard EPA methods for analysis and could often report results verbally the same day sampling took place. The quick turnaround was beneficial and the results were consistent. Full EPA QA/QC procedures were not utilized since the AA laboratory was just starting to operate their gas chromatograph and the Westpark samples were the only samples being run for volatile organics. A fourth laboratory, Idaho State Laboratory, Boise, Idaho, was used once to verify the initial contamination found in Well #1 and to test for volatile petroleum products.

Laboratory Comparability

Several different laboratories were used to help verify the level of tetrachloroethene contamination at Westpark. When different laboratories are utilized there will be some variability in the analytical results. Twelve of the samples taken at Westpark were split between different labs so that a comparison of the results could be made. Four soil samples and eight water samples were split between labs. The results are summarized in Table 4.

No significant tetrachloroethene was detected in any of the split soil samples. This indicates good comparison between labs but leaves some uncertainly since no values could be compared directly. The SERCO lab reported a low value for soil sample SRM-WP-S-24 (23 ppb) while AA reported none detected. AA's minimum detection limit for tetrachloroethene in soil was 250 ppb.

TABLE 4

TETRACHLOROETHENE VALUES FOR SAMPLES SPLIT BETWEEN LABS

Sample	Matrix	PSI	AA	% Difference*
SRM-WP-NT-2	Soil	none detected	none detected	--
SRM-WP-S-16	Soil	none detected	none detected	--
SRM-WP-SG-BD1	Soil	none detected	none detected	--
SRM-WP-Well 1	Water	1228 ppb (Nov 23)	1550 ppb (Nov 23)	-20.8
SRM-WP-Well 9	Water	660 ppb (Nov 23)	1040 ppb (Nov 23)	-36.5
SRM-WP-Well 6**	Water	19 ppb (Nov 23)	22 ppb (Dec 31)	-13.6
SRM-WP-Well 8**	Water	77 ppb (Nov 23)	100 ppb (Dec 31)	-23.0
		SERC	AA	
SRM-WP-Well 14	Water	none detected	none detected	--
SRM-WP-Well 15	Water	35 ppb	70 ppb	-50.0
SRM-WP-Well 16	Water	14 ppb	13 ppb	+ 7.7
SRM-WP-Well 17	Water	2100 ppb	1160 ppb	+81.0
SRM-WP-S 24	Soil	28 ppb	none detected	--

*% difference equals $\left(\frac{\text{PSI or SERCO - AA}}{\text{AA}}\right) \times 100$

**Wells 6 and 8 were not true split samples since they were sampled on different days.

The results for the eight split water samples were for the most part fairly consistent. PSI's results were consistently about 300 ppb lower than AA for samples in the range of 1000 ppb. The two results given for Well #17 (SERCO: 2100 ppb; AA: 1160 ppb) were not as consistent as the values for the wells with lower levels of contamination. In conversations with the various labs, it appears as though the methods and timing for diluting concentrated samples is the most likely factor contributing to differences in the samples around 1000 ppb. The results of a set of six water samples sent to PSI on 12/18/87 were rejected by SRM due to unacceptable quality control data.

Given that tetrachloroethene is a volatile compound and that some variability will exist in the well water and that some variability will be introduced during the field sampling, the laboratory results are probably within plus or minus 20 to 50% of the true values in the aquifer at the different wells. The EPA recommends that the variability at a single laboratory not exceed plus or minus 25% for tetrachloroethene. The repeatability over time and between labs has been good for a short term assessment of this type (i.e., 4 months). The water samples taken at Westpark are not filtered (per EPA guidelines) and the silt may be contributing to some of the variability within the individual well samples.

Soil Analysis

The following discussion summarizes the results of the soil sampling completed at Westpark. The complete laboratory results are given in Appendix D and the sampling locations are shown on the site maps in Appendix A.

Most of the soil samples taken contained no detectable tetrachloroethene. The minimum detection limit (MDL) varied with the lab doing the analysis, but all the MDL's were low enough for identifying potential spill areas (MDL for tetrachloroethene in soil: AA-250 ppb, PSI-300 ppb, SERCO-2 ppb).

Tetrachloroethene was identified in soil sample #7 (.255 ppm), #11 (trace, less than 3 ppb) and #24a (28 ppb). These values are relatively low and could be a result of vehicle traffic in the area tracking drill cuttings from nearby wells and soil test pits or it could be trace tetrachloroethene that has volatilized through the underlying soils that are contaminated from the groundwater. The values are low enough and far enough apart that it is doubtful they resulted from a direct surface spill of tetrachloroethene.

The summer of 1987 was unusually hot and dry in southern Idaho which would tend to volatilize the tetrachloroethene in the surface soils. There is no visual evidence of a chemical spill in the area where trace levels of tetrachloroethene were found in the soil. All of the Westpark soil samples taken at depth contained no detectable tetrachloroethene.

The soil samples submitted to PSI and SERCO were analyzed for all the ERA priority pollutant volatile organic compounds (method SW 8240) (samples NT-2a, NT-1, S-5, S-11, S-13, S-24a, S-25, BD-1, and S-16a). Sample NT-2a was also analyzed for metals. The metal analysis shows a five fold increase in the lead content of sample NT-2a (49.5 ppm) as compared to an average of the three soil samples (9.2 ppm) taken in the first assessment for Westpark. The 49.5 ppm lead level is not significant in terms of hazardous soil contamination and it may be the result of lead in spilled used motor oil.

Table 5 summarizes the volatile constituents found by PSI and SERCO in the nine soil samples.

TABLE 5

VOLATILE COMPOUNDS IDENTIFIED IN NINE SOIL SAMPLES SUBMITTED TO PSI AND SERCO (ppm)

Volatile Compounds Identified in Nine Soil Samples Submitted to PSI and SERCO (ppm)

Sample #	Tetrachloro-ethene	Dichloro-methane*	Ethyl-benzene	1,2 Dichloro-ethene
S-5a	ND**	4	ND	3.5
S-11	Trace	3	ND	ND
NT-1	ND	6	ND	ND
NT-2	ND	4	1.3	ND
S-13	ND	ND	ND	ND
S-16a	ND	ND	ND	ND
BD-1	ND	ND	ND	ND
S-24a	.028	ND	ND	ND
S-25	ND	ND	ND	ND

*Dichloromethane is also called methylene chloride.
**ND indicates none detected

Given the 1000 to 2000 ppb levels of Tetrachloroethene found in Wells 7 and 12 there is a high probability that tetrachloroethene exists in the soils at the water table-soil interface. The groundwater level at Westpark fluctuates seasonally with the percolation of irrigation water from nearby canals and farm land. The water table drops in the fall when the irrigation water is shut off. As the groundwater drops some tetrachloroethene will be adsorbed to the soil in the area of the plume. The concentrations that will

exist at this interface will be a function of the groundwater concentration, upper soil concentrations and the equilibrium partition coefficient for the tetrachloroethene (other minor factors exist, but their influence would be small). An assessment of how much tetrachloroethene would be leached from these soils by precipitation or rising groundwater is beyond the scope of this study. The total amount of tetrachloroethene that could leach from the Westpark soils is highly dependent upon whether the spill site is on Westpark property and how long ago the spill occurred. If the spill is recent, concentrations in the Westpark groundwater could increase with time and then diminish as the plume migrates down gradient. If the spill occurred some time ago, one would expect the concentrations to diminish with time as the tetrachloroethene is leached from the soil and the plume migrates down gradient. If the spill was southeast of the Westpark properties there should not be any substantial soil contamination on the Westpark site.

Groundwater Analysis

Seventeen groundwater monitoring locations were sampled during the second environmental assessment (11/23 to 1/13) of the Westpark properties. A total of 29 groundwater samples were collected for analysis. Of these 29, 21 were analyzed for only tetrachloroethene (AA Laboratory) while 8 were analyzed for the full suite of volatile organics (SERCO and PSI Laboratories). Complete laboratory results are shown in Appendix E. A brief discussion of the comparability of the laboratories was given previously in the soil results section. The groundwater sampling results are summarized in Table 6 (all concentrations are ppb).

Tetrachloroethene is the most predominant groundwater contaminant identified at the Westpark site. Trichloroethene has been measured in the range of 3 to 13 ppb in the wells that have the highest concentrations of tetrachloroethene. Trichloroethene is a primary breakdown product of tetrachloroethene (Cline, 1984). In general, the highest concentrations measured are in the area of monitoring wells #7 and #12. It should be noted that wells #9, 10, and 11 are deep wells drilling to the bottom of the gravel aquifer (approximately 45 feet). The other wells are shallow (13 to 17 feet) and probably only penetrate the top 20 percent of the aquifer.

Tetrachloroethene and trichloroethene are denser than water and would typically sink with time in the aquifer if high concentrations were present. The aeromatic hydrocarbons on the other hand, are lighter than water and would float on the water table. Well #8 shows the highest concentrations of the paint thinner or gasoline substances (xylene, benzene, ethylbenzene). Well #6 which is directly southwest from well #8 also showed low level contamination by ethylbenzene. Since none of the other wells analyzed by PSI or SERCO showed paint thinner substances, it's possible that this contamination is originating from an area not related to the tetrachloroethene source. The trichloroethene tends to coincide with the higher levels of tetrachloroethene and not the aeromatic hydrocarbons.

TABLE 6

WESTPARK GROUNDWATER SAMPLING SUMMARY

Well #	Sample #	Sample Date	Lab	Tetrachloro-ethene (ppb)	Other Volatiles (ppb)	Comment
1	Well 1	10/29	PSI	738	N/A	Assessment I
1	W-1002	11/12	AA	618	N/A	Verification
1	W-1001	11/12	ISL	16000*	N/A	Verification
1	1	11/23	AA	1550	N/A	Split
1	1a	11/23	PSI	1228	3 (trichloroethene)	Split
1	1C	11/23	AA	2100	N/A	Sample before purge
1	1d	12/18	AA	990	N/A	
2	Well-2	10/29	PSI	none	none	Assessment I
3	Well-3	10/29	PSI	none	none	Assessment I
4	4	11/23	AA	119	N/A	
5	5	11/23	AA	1400	N/A	
5	5d	12/18	AA	1310	N/A	
6	6	11/23	PSI	19	18 (ethylbenzene)	
6	6d	12/31	AA	22	N/A	
7	7	11/23	AA	2520	N/A	
7	7d	12/18	AA	1540	N/A	
8	8	11/23	PSI	77	17 (benzene) 38 (ethylbenzene) 18 (total xylenes)	
8	8d	12/31	AA	100	N/A	
9	9	12/7	AA	1040	N/A	
9	9a	12/7	PSI	660	7.5 (trichloroethene)	Split
9	9b	12/7	AA	920	N/A	Bottom of well
9	9d	12/18	AA	1220	N/A	
10	10	12/7	AA	7	N/A	
11	11	12/7	AA	5	N/A	
12	12	12/16	AA	1830	N/A	
12	12d	12/18	AA	1510	N/A	
13	13	12/17	AA	1250	N/A	
13	13d	12/18	AA	1140	N/A	
14	14	1/13	AA	<3	N/A	
14	14a	1/13	SERCO	<1	None	
15	15	1/13	AA	70	N/A	
15	15a	1/13	SERCO	35	none	
16	16	1/13	AA	13	N/A	
16	16a	1/13	SERCO	14	none	
17	17	1/13	AA	1160	~~N/A~~ TCE	
17	17a	1/13	SERCO	2100	4.5 trans 1,2 dichloroethylene 26.0 1,1,2,2 tetrachloroethane 13.0 trichloroethene	

*ISL reported 16000 ppb, however the analysis was done for verification of tetrachloroethene and not quantification. ISL was not certified by EPA for tetrachloroethene at the time of analysis.

Figure 3 "Estimated Tetrachloroethene Concentrations" shows the estimated concentration contours for tetrachloroethene for the period November 1987 through January 13, 1988. Well installation and sampling took place over this time period therefore a specific date cannot be assigned to the plume shown. Figure 3 lists the different sampling dates used for calculating the contour locations. All but two of the laboratory results used are from Analytical Laboratories. AA's values were the most consistent and frequent results available. The zero concentrations shown for Wells 2 and 3 are from the first Westpark assessment samples (10/29/87) which were analyzed by PSI Laboratories (SRM, 1987).

Given the information available to date, the contamination appears to be beyond the Westpark properties to the west and northwest. A 0.010 ppm contour is not shown on Figure 3 because the available wells do not define that contour. It is apparent, however, that a 0.010 ppm contour would extend further to the southeast. The reviewer should not assume that the tetrachloroethene plume ends at the 0.100 ppm contour shown on Figure 3.

Tetrachloroethene and trichloroethene are two of the nine volatile organic compounds that EPA has been studying and preparing to issue drinking water standards. Considerable public comment and agency assessment has taken place in the last five years. The currently used term for a standard is "maximum contaminant level" or MCL. On July 8, 1987, EPA established MCL's for eight of the compounds (USEPA, 1987a). An MCL of .005 mg/liter (5 ppb) was established for trichloroethene but the decision on the MCL for tetrachloroethene was postponed for six months or more. Apparently new toxological data is being reviewed by EPA. The values currently being discussed by EPA for a drinking water MCL (long term) for tetrachloroethene are in the range of 5 ppb to 20 ppb (USEPA, 1980 and personal communication with EPA Region 10).

A variety of factors can influence the rate and direction of contaminant migration in the aquifer. The most obvious is the direction of groundwater flow. A groundwater flow pattern has been estimated from our water level readings in Wells 1-17 on 1/13/88. The groundwater contour map is shown in Appendix C and indicates a general northwest groundwater flow.

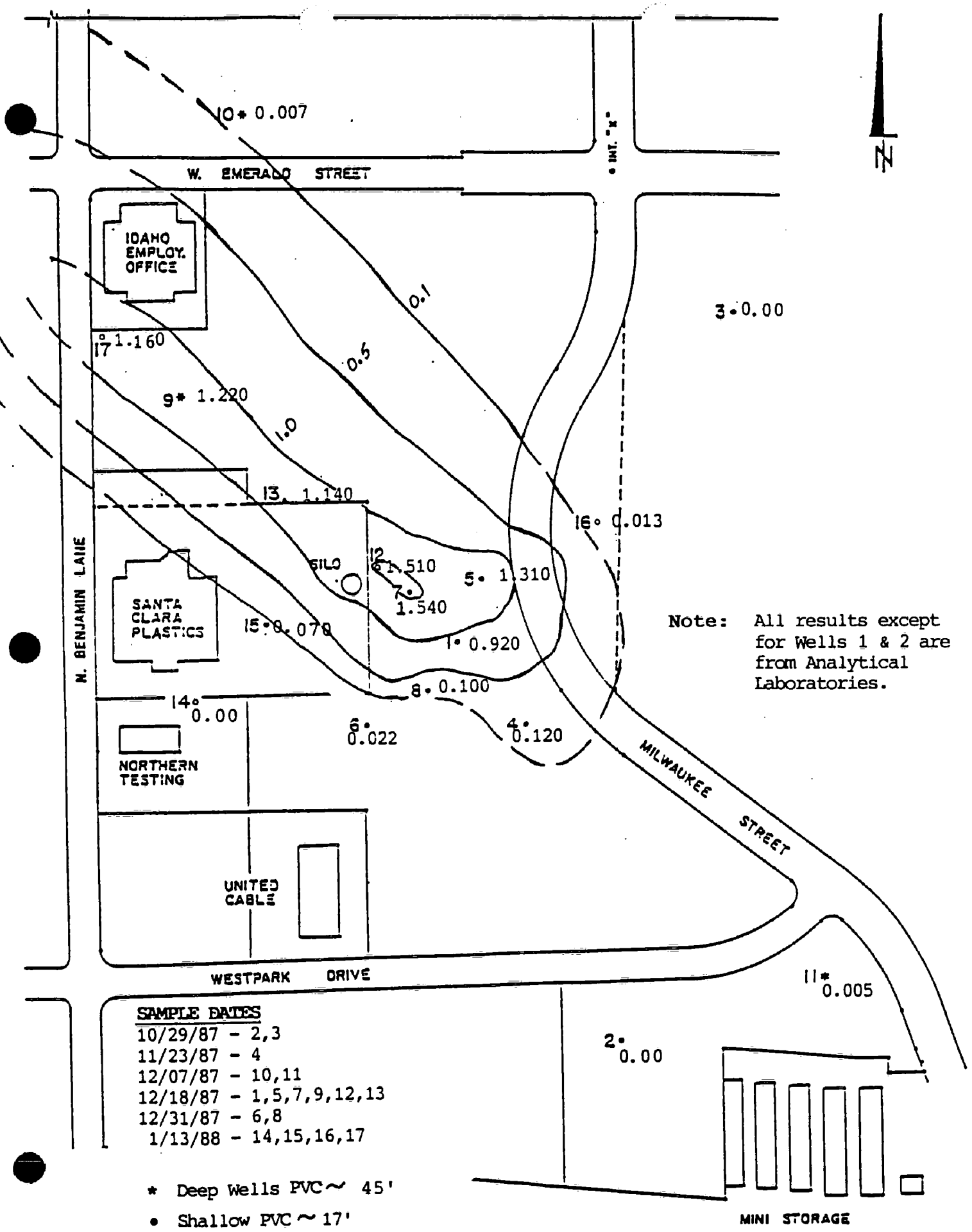


FIGURE 3
ESTIMATED TETRACHLOROETHENE CONCENTRATIONS (PPM)

There may be local flow patterns in the area that were not characterized by SRM's wells. Industrial and/or residential drainfields could influence the local groundwater flow pattern as would any major pumping in the area.

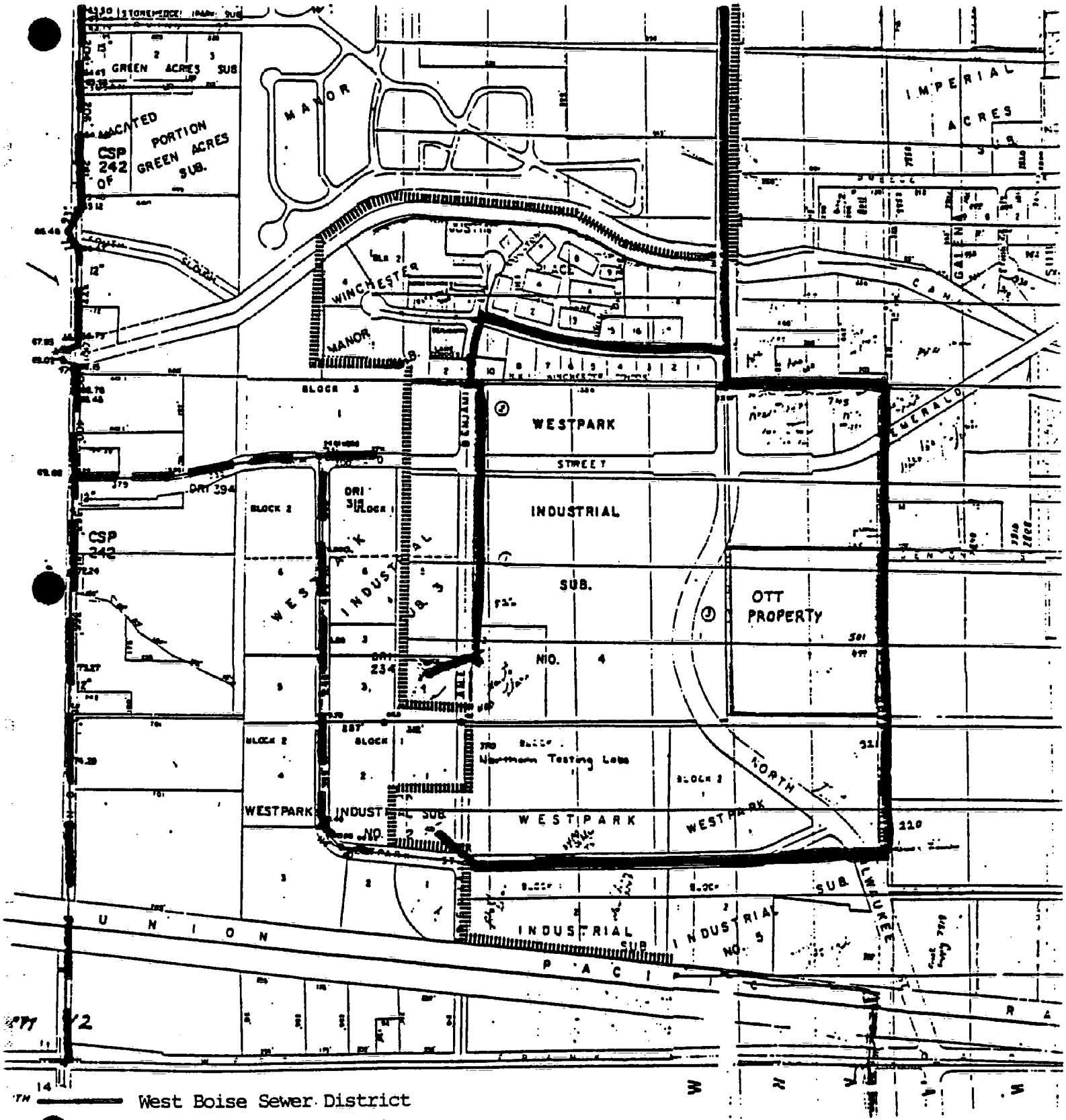
The Westpark properties are located in an area serviced by two sewer systems as shown in Figure 4. The north-south boundary line demarcating the two sewer systems is located between Steelhead Way and Benjamin Lane. The West Boise Sewer District serves the area east from Benjamin Lane while Boise City Sewer District serves the area west from Steelhead Way.

According to Warren Eilers of the Boise Sewer District, the only businesses in this immediate area connected to their sewer systems are a warehouse located at 305-27 Steelhead Way and Preco, Inc., 415 N. Maple Grove Road. Irma McCoy of the West Boise Sewer District stated that Northern Engineering and Testing, Inc., 370 Benjamin Lane, (b) (6) [redacted], are the only properties in their service area that are not on the sewer system but rather have their own septic systems. The septic systems may create localized deviations in the northwest flow direction.

Miscellaneous Sample Analysis

Twelve miscellaneous samples were collected during the Westpark assessment. The sample locations and procedures were discussed earlier in the methodology section. The laboratory results are reported in Appendix H.

Two equipment decontamination blanks were taken during the well drilling and soil sampling. On 11/23/87 clean distilled water was poured over the soil sampling core and collected in two VOA vials. This sample (WP-Decon) was obtained after cleaning the core device before taking soil sample. Laboratory results showed no detectable tetrachloroethene in the equipment contamination sample. A second decontamination blank (WP-decon 2) was collected on 12/16/87 by running distilled water through the hollow



West Boise Sewer District

Boise City Sewer District

Demarcation Line Between Sewer Districts

SEWER SYSTEMS IN THE WESTPARK AREA

stem auger flights after they were steam cleaned. This sample was analyzed for tetrachloroethene and none was detected (MDL was 5 ppb).

A grab sample of bentonite (SRM-WP-BG-001) was obtained during the installation of Well #7 and analyzed for tetrachloroethene (BG-001). No tetrachloroethene was detected in the bentonite (MDL was 250 ppb).

The water sample WP-SCP-SEW was collected from the West Boise Sewer line at the manhole opening on Benjamin southwest of the State of Idaho Employment Office. The sewer line at this point contains discharge from Santa Clara Plastics and one warehouse building on the west side of Benjamin. The sample was analyzed for tetrachloroethene and none was detected (MDL=5 ppb). The surface water sample collected from the standing ditch water east of Northern Engineering and Testing (WP-1003) did not contain any detectable tetrachloroethene (MDL = .1 ppb).

The sample results of the well development water and contained mud pit water all reflected the level of contamination from their respective sources. For example the well development water and mud pit water for Well #9 was 136 ppb, the well development water from Well #11 was 7 ppb, and the mud pit water from Well #10 was less than 5 ppb.

The debris that was collected on 11/12/87 (samples WP-DB-001 and WP-DB-002) appeared to be a rubber like sack filter that had been abandoned near Well #1. Upon laboratory analysis and discussions with several persons familiar with the material, it was determined that the material was the remains of a weather service balloon (St. Laurant, 1987).

Review of State Well Log Locations

If a major plume of tetrachloroethene exists in the Westpark area, the primary health concern would be the public's exposure through drinking water supplies. SRM conducted an investigation to determine the likelihood of groundwater use in the area for domestic or other potable purposes. A

thorough review of the well logs on record (Westpark area) with the Idaho Department of Water Resources was conducted. The complete well log review report is contained in Appendix L. The investigation results indicates that there may be eight shallow private wells within a one-half mile radius of Westpark. The nearest active well appears to be (b) (6) [redacted]

Most of the residences in the area are served by city water. The city of Boise's well system is under the jurisdiction of the Boise Water Corporation (BWC). According to Dan Brown of BWC, there are no city wells in T3N R1E, Section 12 which encompasses the Westpark site. Sections 1, 2, 11 and 12 which border Section 12, do not contain any city wells either (see General Site Location Map in Appendix A). Boise Water does maintain a 3 million gallon water tank and booster station to the west of Westpark on Steelhead Way. The nearest Boise Water Wells in T3N, R1E are in Sections 14 (NE quad) and 3 (NE quad).

Governmental Agencies

A number of legal, ethical and institutional issues have arisen subsequent to the finding of tetrachloroethene in the groundwater at and beyond the Westpark properties. The issues are complicated by the fact that the source of the groundwater contamination has not been identified. Section 103(a) of CERCLA appears to require that the owner or operator of the Westpark properties notify the National Response Center (NRC) of knowledge of the past release of a reportable quantity of tetrachloroethene. The reportable quantity of tetrachloroethene is one pound. The NRC is a federal organization centered in Washington, DC and generally does not get involved in the actual assessment of most Idaho spills.

The following governmental agencies are more likely to become involved in any agency assessment of the Westpark site. Additional agency staff

(other than those listed) would probably be assigned to work on the technical issues and review reports.

Idaho Department of Health and Welfare (state)
Division of Environment
Ken Brooks, Administrator

Water Quality Bureau
- Al Murray, Chief
- Craig Shepard, Boise Field Office

Hazardous Material Bureau
- Cheryl Koshuta, Chief
- Katie Sewell - Acting Manager - RCRA Compliance
- John Moeller, Manager - Technical Assistance (Superfund Program)
- Curt Fransen, Attorney

Idaho Department of Water Resources (state)

Groundwater Protection Section
- John Beal, Manager

Central District Health Department (local)

Environmental Services
- Tom Turco, Chief

U.S. Environmental Protection Agency (federal)

Idaho Operations Office (Boise)
- Lynn McKee, Director

RCRA/Superfund - Hazardous Waste Team
- Steve Provant, Chief

SUMMARY AND CONCLUSIONS

On October 23, 1987, Pacific Rim Development Corporation retained the services of the environmental consulting firm Special Resource Management, Inc., to conduct a routine site investigation of 50 plus acres of property in Boise, Idaho. This particular property is located directly west of the new Boise Town Square Mall and is generally referred to as the proposed Westpark Commercial Center. Along with the collection of basic soil engineering data, the site investigation was intended to provide sufficient data to document the presence or absence of any hazardous materials on-site. As part of the investigation, a series of soil and groundwater samples were collected for laboratory analysis. Analysis of one of the well water samples suggested the possible presence of tetrachloroethene at relatively low levels. The contaminated well was resampled and two different laboratories confirmed low levels of tetrachloroethene in the water. This first assessment at Westpark was completed on November 6, 1987.

Further assessment of the contamination was requested and additional monitoring wells were installed on the Westpark properties. Additional soil samples were also taken to help characterize the extent of contamination. Results indicated that tetrachloroethene was present at low levels in the groundwater in the north half of Parcel #1. Meetings with adjoining property owners allowed the installation of additional wells to the west of the Westpark properties to better define the plume of contamination. Results-to-date indicate that tetrachloroethene is present in a narrow plume orientated northwest across the north half of Parcel 1. The groundwater flow within Parcel 1 has been determined to be northwest. The origin or source of contamination has not been identified. The highest concentrations in the center of the plume range from 1,000 ppb to 2,500 ppb. Plume concentrations drop off rapidly perpendicular to the northwest flow of groundwater (i.e., southwest and northeast of the plume centerline). Low concentrations (3 to 13 ppb) of trichloroethene have been observed in the monitoring wells that have the highest concentrations of tetrachloroethene (1,000 ppb or more). Trichloroethene is one of the primary breakdown products of tetrachloroethene (reductive dehalogenation).

Tetrachloroethene has been identified as a human carcinogen. At the present time a drinking water standard has not been established by the Federal EPA or the State of Idaho. The Federal EPA is currently discussing establishing a drinking water standard for tetrachloroethene somewhere within the range of 5 to 20 ppb. A federal drinking water standard for trichloroethene was recently (July 8, 1987) established by EPA at a concentration of 5 ppb. The State of Idaho has proposed groundwater protection standards that call for no detectable tetrachloroethene in groundwater which might be used for domestic water supplies. In areas already exceeding the recommended standard, the background concentration is applicable to new facilities.

Once it became apparent that groundwater contamination existed in the Westpark area, a concurrent investigation was conducted to examine the likelihood of groundwater use in that vicinity for domestic or other potable purposes. Well logs on record with the Idaho Department of Water Resources within T3N; R1E; Sections 1, 2, 11, 12, 13, and 14 were reviewed. The Department's file of well logs is the most complete record of well locations available. Some wells, however, are not filed with the Department. Westpark lies within Section 12. Within a 1 mile radius of Westpark there are approximately 79 wells on record with the State that have general locations indicated on the well log. Of the 79, 23 are equal to or less than 60 feet in depth. The well log review indicated that approximately 25 wells may be located within a 1/2 mile radius of Westpark. Eleven of the 25 wells were equal to or less than 60 feet deep. It was found through an informal survey that approximately 20% of the well owners in the area had converted to or connected to the Boise public drinking water system. If the conversion factor is applied to the number of shallow wells in the area, it could be assumed that eight wells equal to or less than 60 feet within the 1/2 mile radius could be drawing water from the shallow aquifer. Some of these wells are, of course, upgradient of the known plume area and some are possibly abandoned (old farm houses no longer in use). No wells were observed to be in use within the defined tetrachloroethene plume and it appears that no wells are in use immediately downgradient (1/4 mile) of the plume.

Aquifer test data, water level information and estimated dispersivities were used in a model published by Kent and others (1985), in an attempt to quantify the age and extent of the contamination. Dispersivities for sediments such as the terrace gravels found at this site would be expected to range from 0.3 ft. to 2 ft. Typically when trying to fit sparse data to a model the dispersivities are increased by one or two orders of magnitude. In this case, the best fit was obtained by increasing the estimated values by a factor of about 20. A fairly good fit was obtained for the concentrations found in wells 9 and 17 for a spill of two drums occurring approximately one year prior to sampling. Longer and shorter time periods with varying quantities were tried without success. Based on the concentrations observed to date on Westpark properties, approximately 40 to 50 gallons of tetrachloroethene is in the groundwater at present. Allowing for volatilization and adsorption on soil, a reasonable estimate of the amount originally spilled is probably about 2 drums (110 gallons).

Extensive surface soil sampling (0 to 6 inches) in the area of Well 1 was completed on 11/23/87. Two surface samples showed trace concentrations of tetrachloroethene (S-11 and S-7). These samples were over 150 feet apart and had several samples located between then that showed no tetrachloroethene. Approximately 14 grab and grab composite soil samples were taken in areas of suspected contamination. Six of the grab samples were taken at depth (1.5 to 5 ft.). The grab sample taken in the bottom of the old farm silo was the only grab sample containing any tetrachloroethene (S-24a, 28 ppb) and it contained only a trace. The low levels of tetrachloroethene found in the soil samples do not fit a well defined pattern. It's possible that these low soil values may be related to vapors moving through the soil from the contaminated water or from the soil pore spaces when the water table drops in the winter.

Other compounds found in the Westpark soils during the second assessment include: dichloromethane; ethyl benzene; and 1,2-dichloroethane. No real pattern existed for the samples containing these contaminates. The concentrations found were relatively low. Dichloromethane is a common

laboratory solvent but generally any laboratory contamination is an order of magnitude lower than the concentrations found at Westpark. Both of the samples taken east of Northern Engineering and Testing which were run for all the VOC's tested positive for dichloromethane. A reportable quantity (greater than 2 ppb) of dichloromethane has not been found in any of the monitoring wells.

Given the concentrations of tetrachloroethene observed in the groundwater in the northwest corner of the property, its fairly certain that the plume extends beyond the Westpark and Santa Clara Plastics properties. Several plausible scenarios exist for how the groundwater at Westpark became contaminated, but the most realistic case at this point in time, given the available information, is that several drums of tetrachloroethene were dumped on or near Parcel 1. The dumping probably occurred one to two years prior to sampling. The concentrations of tetrachloroethene in the Westpark groundwater could either increase or decrease with time depending on when and how much tetrachloroethene was actually spilled.

The impervious hardpan or calachie which underlies most of the Westpark soils (at about 4 to 5 feet) could influence and/or distort where a spilled chemical would enter the groundwater. Since the hardpan is impervious, a chemical would seep through the upper soils and pool on the calachie until it found a fracture it could leach through. It's possible that the spill site could be 100's of feet from the worst contaminated groundwater. In addition, it's possible the current plume may have migrated to Westpark from a spill site upgradient.

With future development proposed for Westpark, several factors should be addressed at a minimum. First, a restriction on any new shallow drinking water wells in the area of contamination should be implemented. Second, the potential exposure to construction workers at Westpark should be addressed. If a "hot" spot or high concentration of tetrachloroethene exists in soil on Parcel 1, excavation work may result in workers being exposed to unacceptable levels of contamination. Third, an agreement with the applicable government agencies needs to be reached in terms of what

concentrations of tetrachloroethene are acceptable in the groundwater under a paved commercial development. There are several alternatives that could be used to minimize the spread of tetrachlorethene and reduce the potential for any exposure to the public and on-site workers.

The Westpark Partnership has requested that SRM prepare a remediation plan for the tetrachloroethene contamination in the groundwater. Remediation of the groundwater under the proposed development will probably require reduction of the contaminant concentration from the current value to as near 5 ppb as possible. An actual target level for any clean-up action would normally be determined by the state regulatory agency or EPA.

The following alternatives will be assessed in terms of possible future action:

1. No action/monitoring only

2. Pumping with offsite disposal
   a. no treatment of disposed water
   b. pre-treatment of disposed water

3. Pumping with onsite treatment and reinjection of water

4. Dilution by injection of clean water

Within the above overall alternatives for remediation, there exist several proven alternative treatment methods for removal of the contaminants from water. These include, but are not limited to, the following:

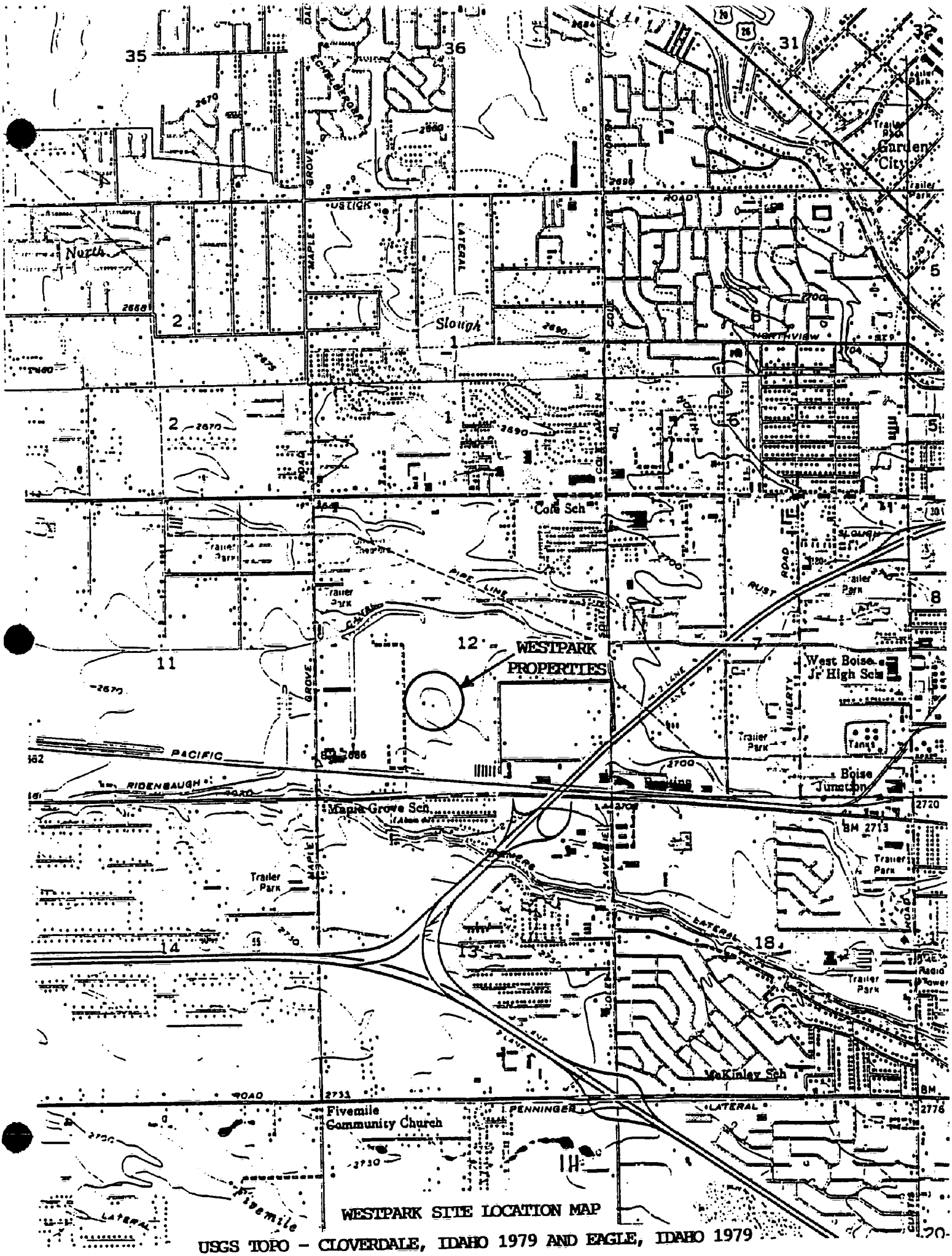
1. Carbon Adsorption Only
2. Air Stripping Only
3. Air Stripping, followed by carbon polishing

The most cost effective treatment method can be selected based on water chemistry, pumping rates projected, contaminant concentration, disposal costs for carbon, and power costs.

Historical construction and operation costs for the various alternatives will be modified to account for the specific flows, concentrations, and site related factors (such as power costs and water disposal costs) to determine the probable least-cost alternative for groundwater remediation specific to the site.

Since most of the alternatives require pumping, SRM shall collect additional aquifer test data for final design of the pumping system. Available data from previous short term tests (under one hour) will be used to design an aquifer test program to obtain additional data without impacting the contamination plume. Additional testing will be longer duration (minimum four hours) which will provide additional data points and better definition of aquifer properties. Information from aquifer testing will be used to determine a pumping rate and well pattern which will maintain sufficient drawdown to induce flow of contaminated water to the wells. This pumping rate will be the final design treatment rate for the alternatives.

Based on the least-cost alternative, a final design shall be developed for the remediation system. This will include site preparation, wells and pumps, support structures (if required), equipment, and utilities. It is estimated that a fully designed and installed remediation system treating 150 GPM will cost on the order of $60,000. The chosen alternative will likely consist of proven technology, so little or no subscale testing will be required, except, perhaps some bench tests of activated carbon contaminant loading capacity.



WESTPARK SITE LOCATION MAP

USGS TOPO – CLOVERDALE, IDAHO 1979 AND EAGLE, IDAHO 1979

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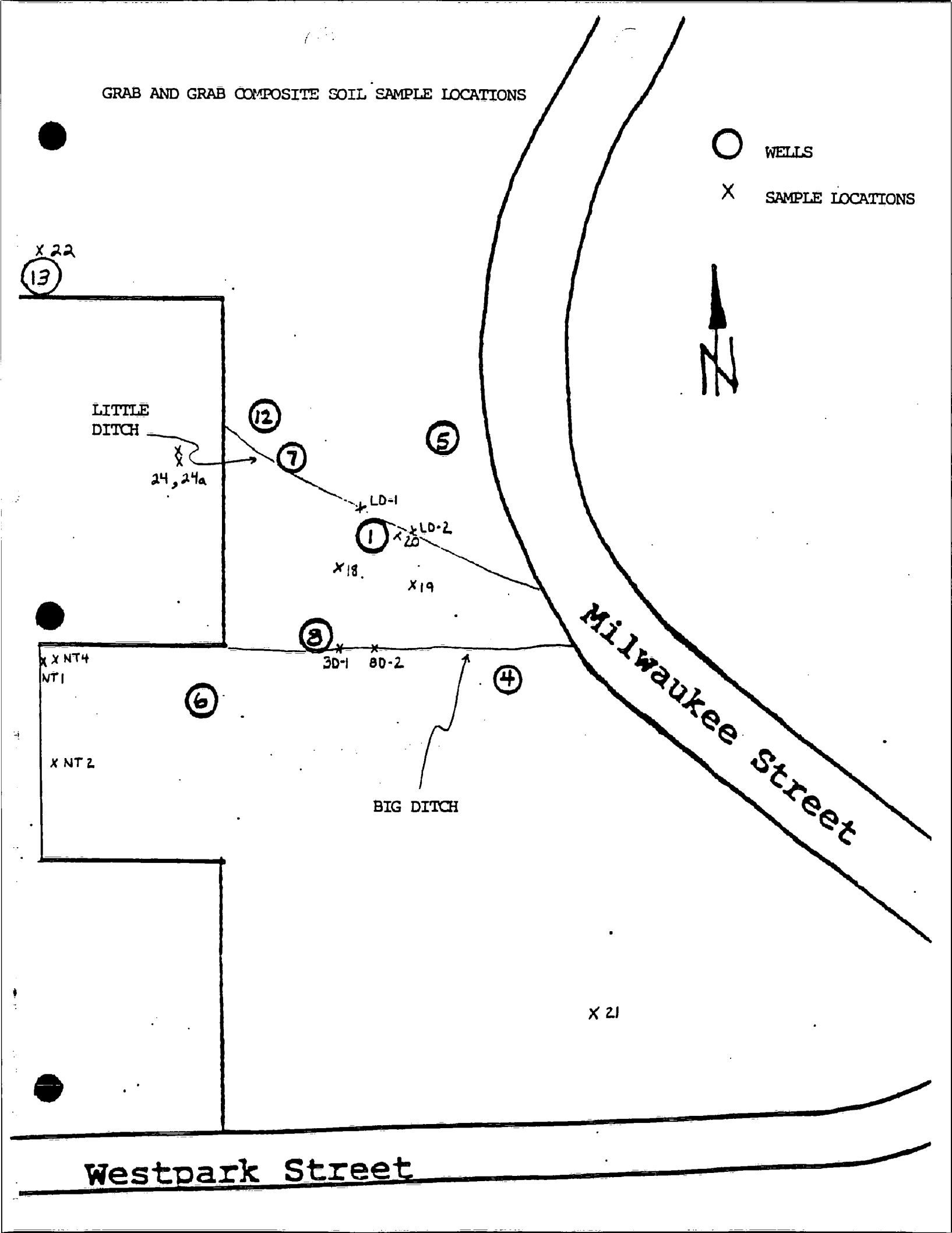
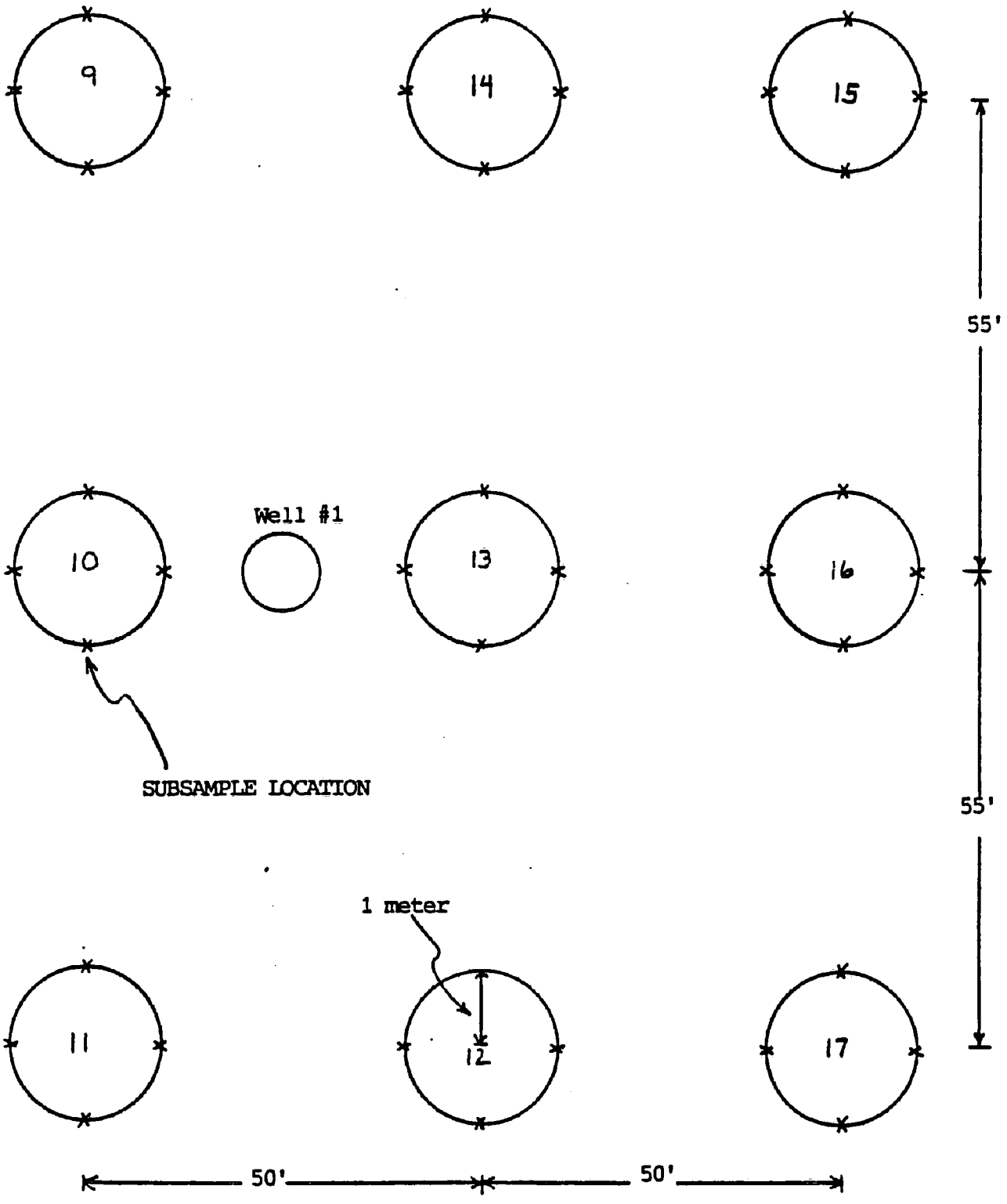
LIST OF APPENDICES

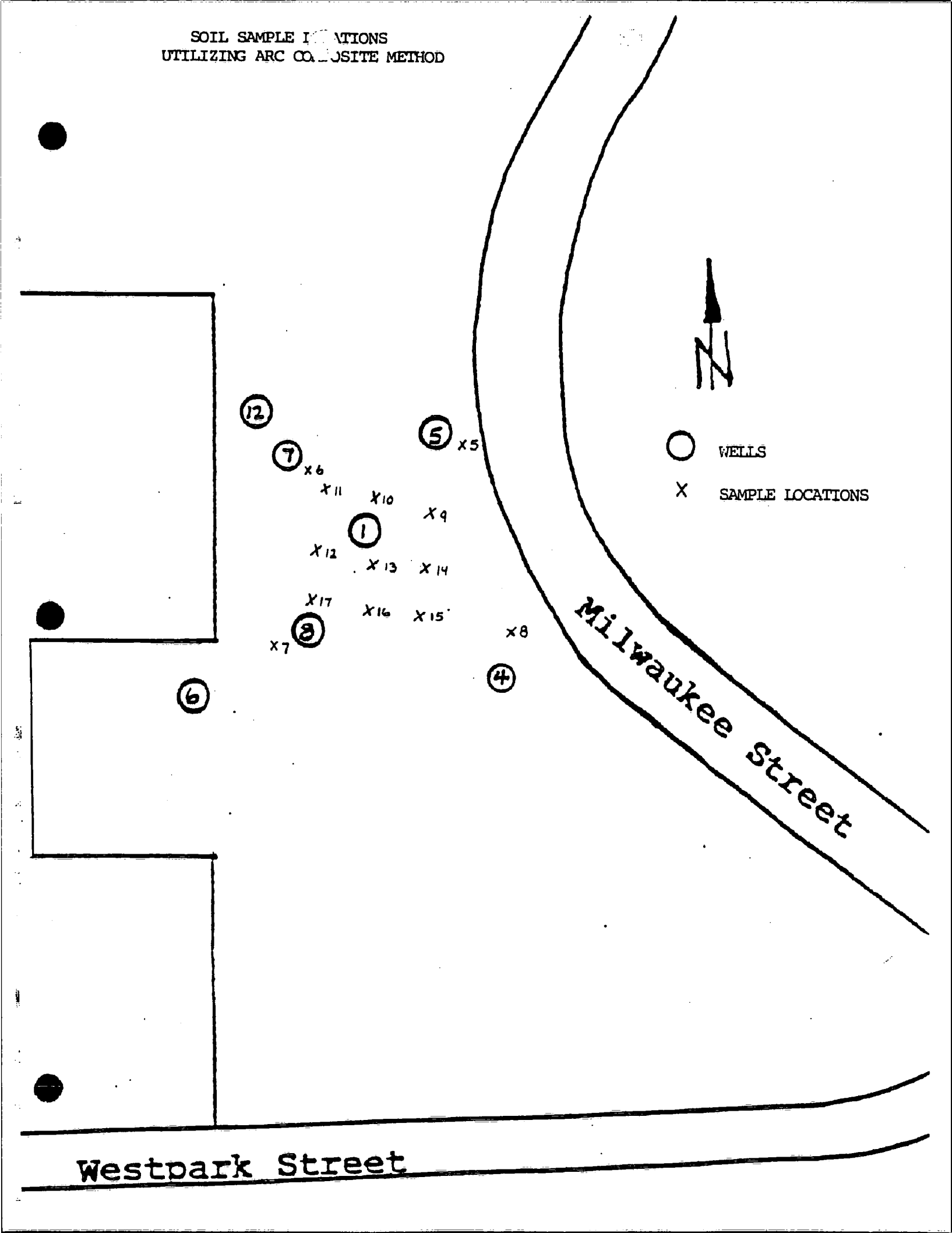
APPENDIX A

SOIL SAMPLE LOCATIONS


GRAB AND GRAB COMPOSITE SOIL SAMPLE LOCATIONS
WELLS
SAMPLE LOCATIONS
N
X 22
13
LITTLE
DITCH
12
7
5
24, 24a
LD-1
LD-2
1
X 20
X 18
X 19
8
3D-1
8D-2
X NT4
NT1
6
4
X NT 2
BIG DITCH
Milwaukee Street
X 21
Westpark Street



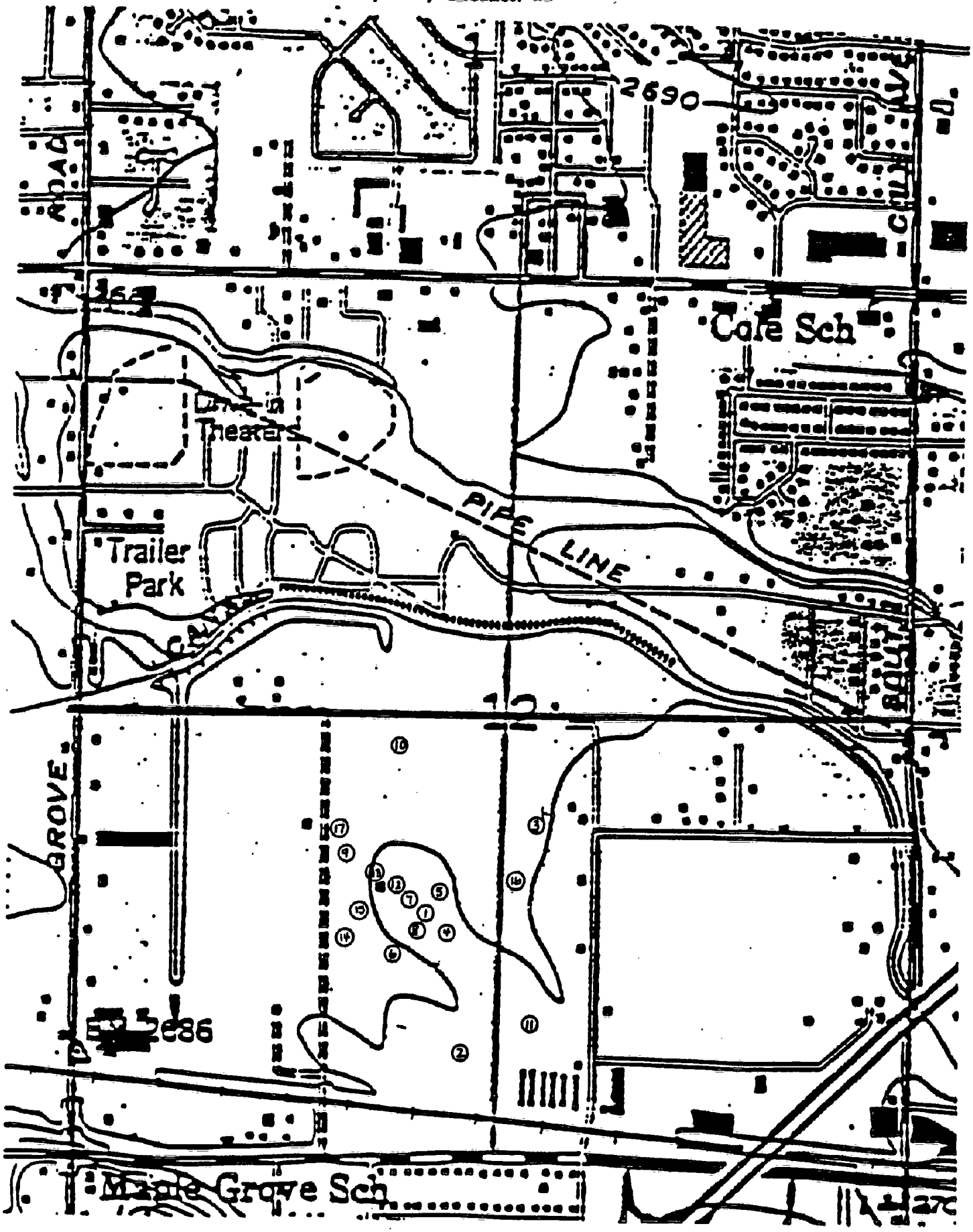
Soil Sample Locations Utilizing the Arc Composite Method


SOIL SAMPLE I \TIONS
UTILIZING ARC CO _OSITE METHOD
N
WELLS
SAMPLE LOCATIONS
Milwaukee Street
Westpark Street
1
2
3
4
5
6
7
8
12
X5
X6
X7
X8
X9
X10
X11
X12
X13
X14
X15
X16
X17

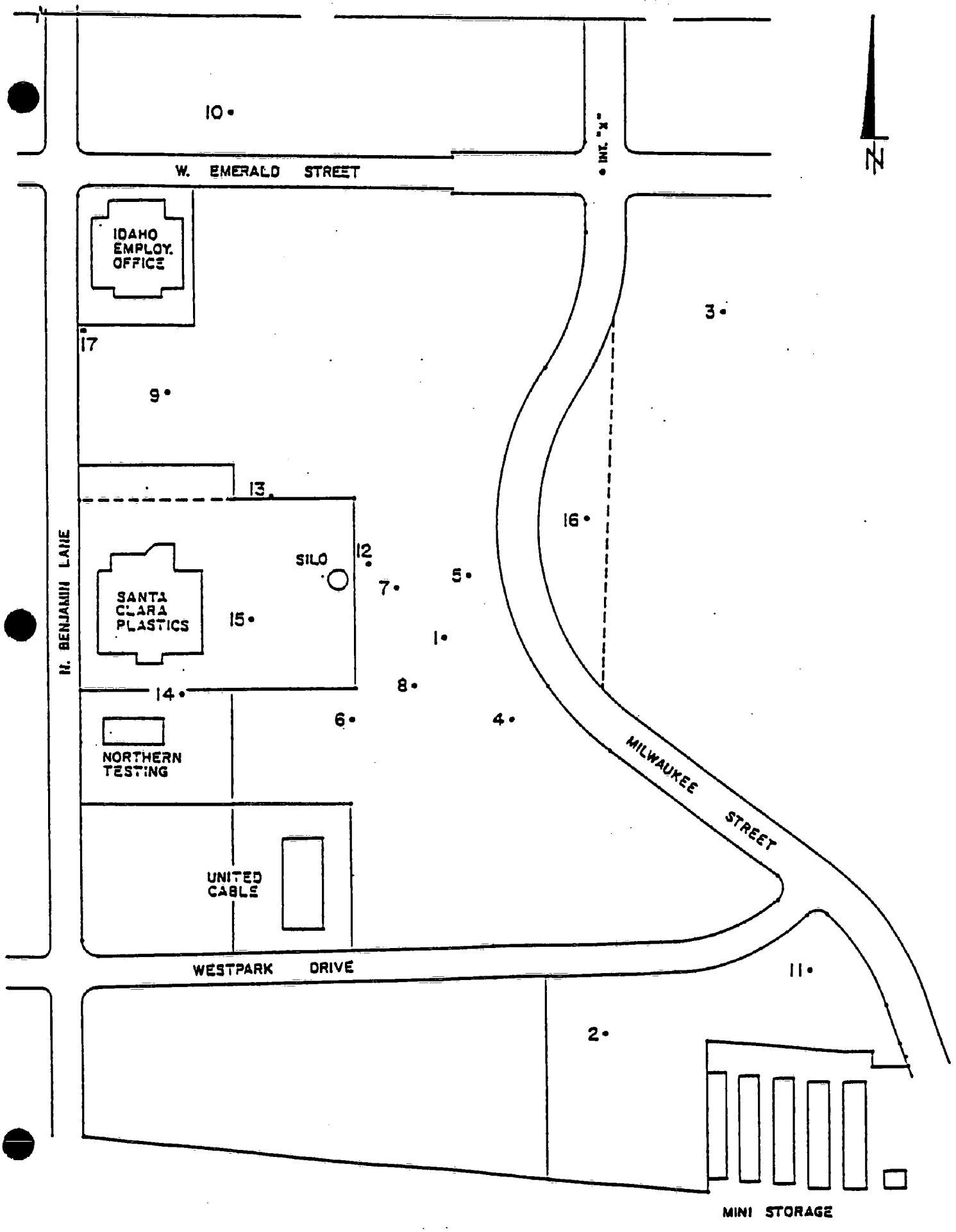
APPENDIX B

MONITORING WELL LOCATIONS

WF PARK MONITORING WELL LOCATIONS
T3N, R1E, SECTION 12



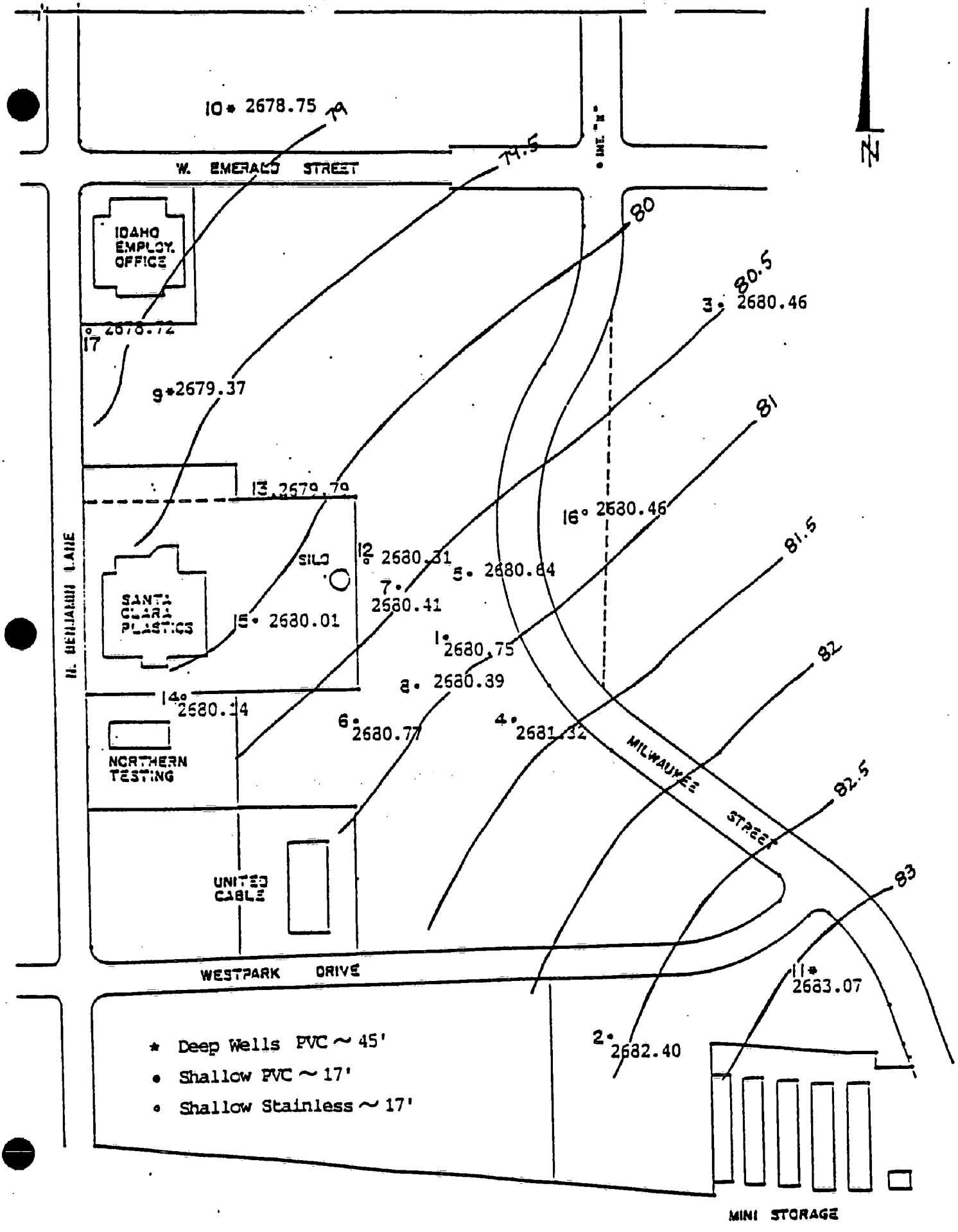
○ MONITORING WELL



MONITORING WELL LOCATIONS AT WESTPARK

APPENDIX C

GROUNDWATER LEVEL CONTOURS



ESTIMATED WESTPARK WATER LEVEL CONTOURS - 1/14/88

APPENDIX D

SOIL SAMPLE RESULTS

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8582

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 1:59 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S #6

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL --------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT --------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT --------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED --------:	TANNIN & LIGNIN --------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ---------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO --------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM -----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8583

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 2:14 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S #7

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN -----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN -----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL --------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT --------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT --------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN --------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ---------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO --------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.255

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8584

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-S #8

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 2:27 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ---:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL -------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT --------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
[illegible]OMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT -------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN --------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO --------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = <0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8585

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 2:42 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S #9

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANAL TICAL LABORAT(IES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8586

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-S #10

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 2:57 PM
DATE RECEIVED ------: 11/24/87
DATE REPORTED ------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
[illegible]MIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM -----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8588

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 3:27 PM
DATE RECEIVED ------: 11/24/87
DATE REPORTED ------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S #12

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN -----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN -----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ---------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE --------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT --------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = <0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8590

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 3:52 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S #14

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL -------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT -------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -----:	FLUORIDE DIRECT -------:	RESIDUE TOTAL ---------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
[illegible]CMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT -------:
[illegible]RBON DIOXIDE ----:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -----:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN -------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ---------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO -------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANAL' TICAL LABORAT(IES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8591

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-S #15

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 4:14 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE -:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram -:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS -:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----------:
ROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = <0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8592

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-S #16

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 4:27 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL -------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT -------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -----:	FLUORIDE DIRECT -------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
[illegible]OMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT -------:
CARBON DIOXIDE -------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -----:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN -------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE -------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO -------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8593

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE —: SRM-WP-S #17

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 4:39 PM
DATE RECEIVED ——————: 11/24/87
DATE REPORTED ——————: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ——:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ——:
CHEMICAL OXYGEN DEMAND —:	FECAL STREP BACTERIA ——:	FECAL COLIFORM, MPN ——:
RESIDUE NONFILTERABLE —:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ——————:
OIL & GREASE ——————:		STAPHYLOCOCCUS / graa —:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ——————:	CYANIDE WEAK ACID DIS —:	PHOSPHATE TOTAL ——————:
ALKALINITY ——————:	E P TOXICITY ——————:	RADIUM GA-GB ——————:
AMMONIA DIRECT ——————:	FLUORIDE DISTILLED ——:	RESIDUE VOLATILE ——————:
AMMONIA DISTILLED ——————:	FLUORIDE DIRECT ——————:	RESIDUE TOTAL ——————:
BICARBONATE ——————:	HERBICIDES ——————:	RESIDUE TOTAL FILTERABLE-:
BORON ——————:	HARDNESS ——————:	SETTLEABLE MATTER ——————:
BROMIDE ——————:	NITRATE N ——————:	STD PLATE COUNT ——————:
CARBON DIOXIDE ——————:	NITRITE N ——————:	SULFATE ——————:
CARBONATE ——————:	NITROGEN ORGANIC ——————:	SULFIDE ——————:
CHLORIDE ——————:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ——————:
CHLORINE RESIDUAL ——————:	OXYGEN DISSOLVED ——————:	TANNIN & LIGNIN ——————:
COLOR ——————:	PCB ——————:	TEMPERATURE ——————:
CONDUCTIVITY ——————:	PESTICIDES ——————:	TOTAL ORGANIC CARBON —:
CORROSIVITY ——————:	PHENOLS ——————:	TRIHALOMETHANE ——————:
CYANIDE FREE ——————:	pH (S.U.) ——————:	TURBIDITY (N.T.U.) ——————:
CYANIDE TOTAL ——————:	PHOSPHATE ORTHO ——————:	

ALUMINUM ——————:	COPPER ——————:	SELENIUM ——————:
ANTIMONY ——————:	GOLD ——————:	SILICA ——————:
ARSENIC ——————:	IRON ——————:	SILICON ——————:
BARIUM ——————:	LEAD ——————:	SILVER ——————:
BERYLLIUM ——————:	MAGNESIUM ——————:	SODIUM ——————:
CADMIUM ——————:	MANGANESE ——————:	THALLIUM ——————:
CALCIUM ——————:	MERCURY ——————:	TIN ——————:
CHROMIUM ——————:	MOLYBDENUM ——————:	TITANIUM ——————:
HEXAVALENT CHROMIUM ——:	NICKEL ——————:	VANADIUM ——————:
COBALT ——————:	POTASSIUM ——————:	ZINC ——————:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8600

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -:
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S-18-1.5

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
CYANIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC --------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED --------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM -----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8601

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-S-19-1.5

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -:
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
[illegible]MIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
[illegible]RBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANAL' TICAL LABORATC IES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8602

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/24/87
TIME OF COLLECTION -: 10:27 AM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S-20-1.5

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL -------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
ROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC --------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED --------:	TANNIN & LIGNIN --------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLORETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8603

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-S-21

DATE OF COLLECTION -: 11/24/87
TIME OF COLLECTION -: 10:45 AM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8549

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 1:01 PM
DATE RECEIVED -------: 11/23/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -: PAT STOLL
SOURCE --: SRM-WP-SG-BD-1

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE -:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8550

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 12:43 PM
DATE RECEIVED ------: 11/23/87
DATE REPORTED ------: 12/02/87

SUBMITTED BY -: PAT STOLL
SOURCE --: SRM-WP-SG-BD-2

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8546

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -: PAT STOLL
SOURCE --: SRM-WP-SG-LD1

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 11:30 AM
DATE RECEIVED ------: 11/23/87
DATE REPORTED ------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
[illegible]MIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ------:
[illegible]RBON DIOXIDE ------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ------:	TANNIN & LIGNIN ------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8547

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -: PAT STOLL
SOURCE —: SRM-WP-SG-LD1-1.5

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 12:20 PM
DATE RECEIVED -------: 11/23/87
DATE REPORTED -------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND —:	FECAL STREP BACTERIA ---:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE —:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram —:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS —:	PHOSPHATE TOTAL ------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT -------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE ------:
AMMONIA DISTILLED -----:	FLUORIDE DIRECT -------:	RESIDUE TOTAL ---------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -----:
[illegible]CHIDE ----------:	NITRATE N ----------:	STD PLATE COUNT -------:
CARBON DIOXIDE -------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -----:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN -------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON —:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE -------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ---------:	PHOSPHATE ORTHO -------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = <0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8548

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 11:43 AM
DATE RECEIVED -------: 11/23/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -: PAT STOLL
SOURCE --: SRM-WP-SG-LD2

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE --------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC --------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED --------:	TANNIN & LIGNIN --------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8589

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-NT-2

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -:
DATE RECEIVED ------: 11/24/87
DATE REPORTED ------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----------:
[illegible]MIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
[illegible]RBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8587

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 3:10 PM
DATE RECEIVED ------: 11/24/87
DATE REPORTED ------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-NT-4

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ---:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
[illegible]MIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = <0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9139

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE 310
BOISE , ID 83702

DATE OF COLLECTION -: 12/15/87
TIME OF COLLECTION -: 4:40 PM
DATE RECEIVED ------: 12/16/87
DATE REPORTED ------: 12/18/87

SUBMITTED BY -:
SOURCE --: SRM-WP-S #22 (SOIL)

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ---------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ---------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC --------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 244

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 01/13/88
TIME OF COLLECTION -: 3:20 PM
DATE RECEIVED ------: 01/13/88
DATE REPORTED ------: 01/21/88

SUBMITTED BY -:
SOURCE —: SRM-WP-24 SOIL COMPOSITE

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ——:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ——:
CHEMICAL OXYGEN DEMAND —:	FECAL STREP BACTERIA ——:	FECAL COLIFORM, MPN ——:
RESIDUE NONFILTERABLE —:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ——————:
OIL & GREASE ——————:		STAPHYLOCOCCUS / gram —:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ——————:	CYANIDE WEAK ACID DIS —:	PHOSPHATE TOTAL ——————:
ALKALINITY ——————:	E P TOXICITY ——————:	RADIUM GA-GB ——————:
AMMONIA DIRECT ——————:	FLUORIDE DISTILLED ——:	RESIDUE VOLATILE ——————:
AMMONIA DISTILLED ——————:	FLUORIDE DIRECT ——————:	RESIDUE TOTAL ——————:
BICARBONATE ——————:	HERBICIDES ——————:	RESIDUE TOTAL FILTERABLE-:
BORON ——————:	HARDNESS ——————:	SETTLEABLE MATTER ——————:
BROMIDE ——————:	NITRATE N ——————:	STD PLATE COUNT ——————:
CARBON DIOXIDE ——————:	NITRITE N ——————:	SULFATE ——————:
CARBONATE ——————:	NITROGEN ORGANIC ——————:	SULFIDE ——————:
CHLORIDE ——————:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ——————:
CHLORINE RESIDUAL ——————:	OXYGEN DISSOLVED ——————:	TANNIN & LIGNIN ——————:
COLOR ——————:	PCB ——————:	TEMPERATURE ——————:
CONDUCTIVITY ——————:	PESTICIDES ——————:	TOTAL ORGANIC CARBON ——:
CORROSIVITY ——————:	PHENOLS ——————:	TRIHALOMETHANE ——————:
CYANIDE FREE ——————:	pH (S.U.) ——————:	TURBIDITY (N.T.U.) ——————:
CYANIDE TOTAL ——————:	PHOSPHATE ORTHO ——————:	

ALUMINUM ——————:	COPPER ——————:	SELENIUM ——————:
ANTIMONY ——————:	GOLD ——————:	SILICA ——————:
ARSENIC ——————:	IRON ——————:	SILICON ——————:
BARIUM ——————:	LEAD ——————:	SILVER ——————:
BERYLLIUM ——————:	MAGNESIUM ——————:	SODIUM ——————:
CADMIUM ——————:	MANGANESE ——————:	THALLIUM ——————:
CALCIUM ——————:	MERCURY ——————:	TIN ——————:
CHROMIUM ——————:	MOLYBDENUM ——————:	TITANIUM ——————:
HEXAVALENT CHROMIUM ——:	NICKEL ——————:	VANADIUM ——————:
COBALT ——————:	POTASSIUM ——————:	ZINC ——————:

COMMENTS: TETRACHLOROETHYLENE = (0.250 MG/KG

Michael D. Moore

MICHAEL D. MOORE

Professional Service Industries, Inc.
Analytical Services Division

ANALYTICAL REPORT

TESTED FOR: SPECIAL RESOURCE MANAGEMENT
200 N. 4th Avenue
Suite 206
Boise, ID 83702

ATTN: BRAD HARR

PROJECT: Chemical Analysis

DATE: November 30, 1987

OUR REPORT NO.: 214-73045-01

REMARKS:

Date Received: November 24, 1987

Sample Identification: One soil sample dated 11/23/87 labeled SRM-WP-NT-2A. Others labeled individually.

Methodology Employed: Standard Methods, 16th Edtion

Analysis	Results	Performed by
Metals analyses on dry weight basis.		
Antimony, mg/kg	<0.50	SC 11/30/87, 08:50
Arsenic, mg/kg	8.84	SC 11/27/87, 14:50
Beryllium, mg/kg	0.21	SM 11/27/87, 09:26
Cadmium, mg/kg	0.12	SM 11/27/87, 14:28
Chromium, mg/kg	0.46	SM 11/27/87, 14:28
Copper, mg/kg	0.11	SM 11/27/87, 14:28
Lead, mg/kg	49.5	SC 11/30/87, 13:00
Mercury, mg/kg	<0.10	SC 11/27/87, 10:50
Nickel, mg/kg	10.9	SM 11/25/87, 16:30
Selenium, mg/kg	23.8	SC 11/25/87, 14:00
Silver, mg/kg	<0.50	SC 11/30/87, 09:75
Thallium, mg/kg	0.22	SM 11/30/87, 10:22
Zinc, mg/kg	3.81	SM 11/27/87, 14:28
% Moisture	24.4	SC 11/25/87, 14:00

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Q.A. DATA

Analysis	Original	Duplicate	(R)	% Recovery of Spike
Antimony	<0.01	<0.01	0	111
Arsenic	0.015	0.013	0.002	109
Beryllium	<0.10	<0.10	0	93
Cadmium	<0.01	<0.01	0	92
Chromium	0.011	0.016	0.005	112
Copper	0.092	0.085	0.007	86
Lead	0.016	0.017	0.001	112
Mercury	<0.002	<0.002	0	93
Nickel	0.25	0.26	0.01	92
Selenium	0.10	0.10	0	91
Silver	<0.01	<0.01	0	90
Thallium	<0.10	<0.10	0	102
Zinc	0.39	0.41	0.02	88

SERCO Laboratories

St. Paul, Minnesota • Denver, Colorado

193[illegible]st County Road C2. St. Paul Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 64 PAGE 4
01/20/88

SERCO SAMPLE NO: 1218
SAMPLE DESCRIPTION: SRM-WP
B. Harr S-24A

ANALYSIS:

Benzene, ug/kg	<2.0
Bromodichloromethane, ug/kg	<20
Bromoform, ug/kg	<30
Bromomethane, ug/kg	<100
Carbon tetrachloride, ug/kg	<5.0
Chlorobenzene, ug/kg	<3.0
Chloroethane, ug/kg	<11
2-Chloroethylvinyl ether, ug/kg	<30
Chloroform, ug/kg	<2.0
Chloromethane, ug/kg	<25
Dibromochloromethane, ug/kg	<14
1,2 Dichlorobenzene, ug/kg	<4.0
1,3 Dichlorobenzene, ug/kg	<4.0
1,4 Dichlorobenzene, ug/kg	<4.0
1,1 Dichloroethane, ug/kg	<5.0
1,2 Dichloroethane, ug/kg	<6.0
1,1 Dichloroethylene, ug/kg	<2.0
1,2 Dichloroethylene, trans, ug/kg	<2.0
1,2 Dichloropropane, ug/kg	<5.0
1,3 Dichloro-1-propylene, cis, ug/kg	<11
1,3 Dichloro-1-propylene, trans, ug/kg	<3.0
Ethylbenzene, ug/kg	<4.0
Methylene chloride, ug/kg	<25

Approved by:

< means "not detected at this level". 1 mg = 1000 ug.

continued

Member

SERCO Laboratories

St Paul, Minnesota • Cedar Falls, Iowa

19[illegible]est County Road C2. St Paul. Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 64 PAGE 5
01/20/88

SERCO SAMPLE NO: 1218
SAMPLE DESCRIPTION: SRM-WP
5-24A

B Hart

ANALYSIS:	
,1,2,2 Tetrachloroethane, ug/kg	<13
Tetrachloroethylene, ug/kg	28
Toluene, ug/kg	<2.0
,1,1 Trichloroethane, ug/kg	<3.0
Trichloroethylene, ug/kg	<1.0
Trichlorofluoromethane, ug/kg	<1.0
Vinyl chloride, ug/kg	<10
,1,2 Trichloroethane, ug/kg	<7.0
Acrolein, ug/kg	<600
Acrylonitrile, ug/kg	<230

All analyses were performed using EPA or other recognized methodologies.

Report submitted by,

Diane J. Anderson, DJM

Diane J. Anderson
Project Manager

< means "not detected at this level". 1 mg = 1000 ug.

Member

SERCO Laboratories
1931 West County Road C2. St. Paul. Minnesota 55113 (612) 636-7173

RECEIVED
St. Paul, Minnesota
JAN 21 1988

SRM, INC. / BOISE

LABORATORY ANALYSIS REPORT NO: 64 PAGE 1
01/20/88

Special Resource Management
200 North Fourth, Suite 206
Boise, ID 83702

Mr. Brad Harr

DATE COLLECTED: 01/13/88
DATE RECEIVED: 01/14/88
COLLECTED BY: CLIENT
PICKED UP BY: CLIENT
SAMPLE TYPE: WATER
SOIL

B. Harr 5-25

SERCO SAMPLE NO:	1168	1178	1183	1198	1208
SAMPLE DESCRIPTION:	SRM-MP-WELL 14B (A) 14A	WELL 15A	WELL 16A	WELL 17A	
ANALYSIS:					
Benzene, ug/L	<1.0	<1.0	<1.0	<1.0	-
Bromoform, ug/L	<6.0	<6.0	<6.0	<6.0	-
Bromomethane, ug/L	<20	<20	<20	<20	-
Bromodichloromethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
Carbon tetrachloride, ug/L	<3.0	<3.0	<3.0	<3.0	-
Chlorobenzene, ug/L	<1.0	<1.0	<1.0	<1.0	-
Chloroethane, ug/L	<5.0	<5.0	<5.0	<5.0	-
2 Chloroethylvinyl ether, ug/L	<10	<10	<10	<10	-
Chloroform, ug/L	<1.0	<1.0	<1.0	<1.0	-
Chloromethane, ug/L	<6.0	<6.0	<6.0	<6.0	-
Dibromochloromethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,2 Dichlorobenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,3 Dichlorobenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,4 Dichlorobenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,1 Dichloroethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,2 Dichloroethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,1 Dichloroethylene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,2 Dichloroethylene, trans, ug/L	<1.0	<1.0	<1.0	4.5	-
1,2 Dichloropropane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,3 Dichloro-1-propylene, trans, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,3 Dichloro-1-propylene, cis, ug/L	<1.0	<1.0	<1.0	<1.0	-
Ethylbenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
Methylene chloride, ug/L	<9.0	<9.0	<9.0	<9.0	-
1,1,2,2 Tetrachloroethane, ug/L	<3.0	<3.0	<3.0	26	-

Approved by:

< means "not detected at this level". 1 mg = 1000 ug.

continued

Member

SERCO Laboratories

West County Road C2. St. Paul. Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 64 PAGE 2
01/20/88

SERCO SAMPLE NO:	1168	1178	1188	1198	1205
SAMPLE DESCRIPTION:	SRM-WP-WELL 14 (A) 14A B. Harr	WELL 15A	WELL 16A	WELL 17A	5-25
ANALYSIS:					
Tetrachloroethylene, ug/L	<1.0	35	14	2100	-
Toluene, ug/L	<1.0	<1.0	<1.0	<1.0	-
1,1,1 Trichloroethane, ug/L	<1.0	<1.0	<1.0	<1.0	-
1,1,2 Trichloroethane, ug/L	<1.0	<1.0	<1.0	<1.0	-
Trichloroethylene, ug/L	<1.0	<1.0	<1.0	13	-
Trichlorofluoromethane, ug/L	<1.0	<1.0	<1.0	<1.0	-
Vinyl chloride, ug/L	<6.0	<6.0	<6.0	<6.0	-
Xylene, ug/L	<100	<100	<100	<100	-
Acrylonitrile, ug/L	<10	<10	<10	<10	-
Benzene, ug/kg	-	-	-	-	<2.0
Bromodichloromethane, ug/kg	-	-	-	-	<20
Bromoform, ug/kg	-	-	-	-	<30
Bromomethane, ug/kg	-	-	-	-	<100
Carbon tetrachloride, ug/kg	-	-	-	-	<5.0
Chlorobenzene, ug/kg	-	-	-	-	<3.0
Chloroethane, ug/kg	-	-	-	-	<11
2-Chloroethylvinyl ether, ug/kg	-	-	-	-	<30
Chloroform, ug/kg	-	-	-	-	<2.0
Chloromethane, ug/kg	-	-	-	-	<25
Dibromochloromethane, ug/kg	-	-	-	-	<14
1,2 Dichlorobenzene, ug/kg	-	-	-	-	<4.0
1,3 Dichlorobenzene, ug/kg	-	-	-	-	<4.0
1,4 Dichlorobenzene, ug/kg	-	-	-	-	<4.0
1,1 Dichloroethane, ug/kg	-	-	-	-	<5.0

Approved by:

< means "not detected at this level". 1 mg = 1000 ug.

continued

SERCO Laboratories

St. Paul, Minnesota • Orlando, Florida

193[illegible] County Road C2. St. Paul. Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 64 PAGE 3
01/20/86

SERCO SAMPLE NO:	1166	1178	1188	1198	1206
SAMPLE DESCRIPTION:	SRM-WP-WELL 14B (A) 14A	WELL 15A	WELL 16A	WELL 17A	5-25
ANALYSIS:					
2 Dichloroetnane, ug/kg	-	-	-	-	<6.0
1 Dichloroetnylene, ug/kg	-	-	-	-	<2.0
,2 Dichloroethylene, trans, ug/kg	-	-	-	-	<2.0
2 Dichloropropane, ug/kg	-	-	-	-	<5.0
,3 Dicnloro-1-propylene, cis, ug/kg	-	-	-	-	<11
3 [illegible]nloro-1-propylene, trans, ug/kg	-	-	-	-	<3.0
[illegible]nylbenzene, ug/kg	-	-	-	-	<4.0
ethylene chloride, ug/kg	-	-	-	-	<25
1,2,2 Tetrachloroetnane, ug/kg	-	-	-	-	<13
etrachloroethylene, ug/kg	-	-	-	-	<2.0
luene, ug/kg	-	-	-	-	<2.0
,1,1 Trichloroetnane, ug/kg	-	-	-	-	<3.0
richloroethylene, ug/kg	-	-	-	-	<1.0
richlorofluorometnane, ug/kg	-	-	-	-	<1.0
inyl chloride, ug/kg	-	-	-	-	<10
1,2 Tricnloroetnane, ug/kg	-	-	-	-	<7.0
crolein, ug/kg	-	-	-	-	<600
crylonitrile, ug/kg	-	-	-	-	<230

Approved by:

< means "not detected at this level". 1 mg = 1000 ug.

continued

Member

Special Resource Management
213-73045-01

Date extracted: 11/25/87
Date analyzed: 11/29/87

Sample ID: SRM-WP-S#5 1:40 p.m.

Methodology: SW 8240 VOLATILE COMPOUNDS

Compound	Concentration ppm (mg/kg)	Reporting Level ppm (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	4	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	3.5	0.3
2-Butanone	BDL	3.0
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Vinyl acetate	BDL	1.5
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %	
1,2-Dichloroethane-d4	112.4
Toluene-d8	121.6
Bromofluorobenzene	82.0

Special Resource Management
213-73045-01

Date extracted: 11/25/87
Date analyzed: 11/29/87

Sample ID: SRM-WP-S#11 3:14 p.m.

Methodology: SW 8240 VOLATILE COMPOUNDS

Compound	Concentration ppm (mg/kg)	Reporting Level ppm (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	3	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	3.0
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Vinyl acetate	BDL	1.5
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	**	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %	
1,2-Dichloroethane-d4	85.2
Toluene-d8	114.8
Bromofluorobenzene	93.6

Special Resource Management
213-73045-01

Date extracted: 11/25/87
Date analyzed: 11/29/87

Sample ID: SRM-WP-S#13 3:39 p.m.

Methodology: SW 8240 VOLATILE COMPOUNDS

Compound	Concentration ppm (mg/kg)	Reporting Level ppm (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	3.0
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Vinyl acetate	BDL	1.5
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %	
1,2-Dichloroethane-d4	134.0
Toluene-d8	118.0
Bromofluorobenzene	99.8

Special Resource Management
213-73045-01

Date extracted: 11/25/87
Date analyzed: 11/29/87

Sample ID: SRM-WP-S#16a 4:27 p.m.

Methodology: SW 8240 VOLATILE COMPOUNDS

Compound	Concentration ppm (mg/kg)	Reporting Level ppm (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	0.3
Carbon disulfide	BDL	3.0
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	3.0
Carbon tetrachloride	BDL	0.3
Vinyl acetate	BDL	0.3
Bromodichloromethane	BDL	1.5
1,2-Dichloropropane	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %	
1,2-Dichloroethane-d4	70.8
Toluene-d8	77.0
Bromofluorobenzene	91.2

Special Resource Management
213-73045-01

Date extracted: 11/25/87
Date analyzed: 11/29/87

Sample ID: SRM-WP-NT-1 2:45 p.m.

Methodology: SW 8240 VOLATILE COMPOUNDS

Compound	Concentration ppm (mg/kg)	Reporting Level ppm (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	6	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	3.0
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Vinyl acetate	BDL	1.5
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %	
1,2-Dichloroethane-d4	93.2
Toluene-d8	113.6
Bromofluorobenzene	92.0

Special Resource Management
213-73045-01

Date extracted: 11/25/87
Date analyzed: 11/29/87

Sample ID: SRM-WP-NT-2a 3:00 p.m.

Methodology: SW 8240 VOLATILE COMPOUNDS

Compound	Concentration ppm (mg/kg)	Reporting Level ppm (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	4	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	3.0
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Vinyl acetate	BDL	1.5
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	1.3	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %	
1,2-Dichloroethane-d4	108.8
Toluene-d8	121.2
Bromofluorobenzene	82.0

Date Extracted: 12/8/87
Date Analyzed: 12/8/87

Sample ID: SRM-WP-SG-BD-1, 11/23/87, 1:01pm

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	3.0
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Vinyl acetate	BDL	1.5
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recoveries, %	
1,2-Dichloroethane-d4	107.2
Toluene-d8	97.2
Bromofluorobenzene	92.0

APPENDIX E

GROUNDWATER SAMPLE RESULTS

ANALYTICAL LABORATORIES, INC.
1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8342

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE 10
BOISE , ID 83702

DATE OF COLLECTION -: 11/12/87
TIME OF COLLECTION -:
DATE RECEIVED ------: 11/12/87
DATE REPORTED ------: 12/08/87

SUBMITTED BY -: BRAD
SOURCE --: SRM-WP-W-1002 well #1

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM -----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.618

Michael D. Moore

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ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8580

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -:
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #1

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN -----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN -----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ------------:
OIL & GREASE ------------:	-	STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL -------:
ALKALINITY -------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -:	FLUORIDE DIRECT --------:	RESIDUE TOTAL ----------:
BICARBONATE ------:	HERBICIDES ------------:	RESIDUE TOTAL FILTERABLE-:
BORON ------------:	HARDNESS ---------------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N --------------:	STD PLATE COUNT --------:
CARBON DIOXIDE ---:	NITRITE N --------------:	SULFATE ----------------:
CARBONATE --------:	NITROGEN ORGANIC -------:	SULFIDE ----------------:
CHLORIDE ---------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT -------------:
CHLORINE RESIDUAL -:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN --------:
COLOR ------------:	PCB --------------------:	TEMPERATURE ------------:
CONDUCTIVITY -----:	PESTICIDES -------------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ------:	PHENOLS ----------------:	TRIHALOMETHANE ---------:
CYANIDE FREE -----:	pH (S.U.) --------------:	TURBIDITY (N.T.U.) -----:
CYANIDE TOTAL ----:	PHOSPHATE ORTHO --------:	

ALUMINUM ---------:	COPPER ----------------:	SELENIUM ---------------:
ANTIMONY ---------:	GOLD ------------------:	SILICA -----------------:
ARSENIC ----------:	IRON ------------------:	SILICON ----------------:
BARIUM -----------:	LEAD ------------------:	SILVER -----------------:
BERYLLIUM --------:	MAGNESIUM -------------:	SODIUM -----------------:
CADMIUM ----------:	MANGANESE -------------:	THALLIUM ---------------:
CALCIUM ----------:	MERCURY ---------------:	TIN --------------------:
CHROMIUM ---------:	MOLYBDENUM ------------:	TITANIUM ---------------:
HEXAVALENT CHROMIUM -:	NICKEL ----------------:	VANADIUM ---------------:
COBALT -----------:	POTASSIUM -------------:	ZINC -------------------:

COMMENTS: TETRACHLOROETHYLENE = 1.55

Michael D. Moore

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ANAI TICAL LABORAT RIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8579

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #1C

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 3:40 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL -------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT -------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -----:	FLUORIDE DIRECT --------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT --------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN --------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ---------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO --------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM -----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 2.10

Michael D. Moore

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ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8543

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 11:30 AM
DATE RECEIVED ------: 11/23/87
DATE REPORTED ------: 12/02/87

SUBMITTED BY -: PAT STOLL
SOURCE --: SRM-WP-WELL #4

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----:
CARBON DIOXIDE ----:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.119

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ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8544

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 12:50 PM
DATE RECEIVED ------: 11/23/87
DATE REPORTED ------: 12/02/87

SUBMITTED BY -: PAT STOLL
SOURCE --: SRM-WP-WELL #5

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 1.40

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ANALYTICAL LABORATORIES, INC.

1304 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9391

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST. - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/31/87
TIME OF COLLECTION -:
DATE RECEIVED ------: 12/31/87
DATE REPORTED ------: 01/05/88

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL 6d

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL --:	SURFACTANT ----------:
CHLORINE RESIDUAL ----------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.022

RECEIVED
JAN 8 1988
SRM, INC. / BOISE

Michael D. Moore
MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9390

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST. - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/31/87
TIME OF COLLECTION -: 3:13 PM
DATE RECEIVED ------: 12/31/87
DATE REPORTED ------: 01/06/88

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL 8d

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
[illegible]OMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
[illegible]ARBON DIOXIDE ----:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.100

/Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8545

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -: PAT STOLL
SOURCE —: SRM-WP-WELL #7

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 1:30 PM
DATE RECEIVED ——-: 11/23/87
DATE REPORTED ——-: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ——:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ——:
CHEMICAL OXYGEN DEMAND —:	FECAL STREP BACTERIA ——:	FECAL COLIFORM, MPN ——:
RESIDUE NONFILTERABLE —:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ——:
OIL & GREASE ——:		STAPHYLOCOCCUS / gram —:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ——:	CYANIDE WEAK ACID DIS —:	PHOSPHATE TOTAL ——:
ALKALINITY ——:	E P TOXICITY ——:	RADIUM GA-EB ——:
AMMONIA DIRECT ——:	FLUORIDE DISTILLED ——:	RESIDUE VOLATILE ——:
AMMONIA DISTILLED ——:	FLUORIDE DIRECT ——:	RESIDUE TOTAL ——:
BICARBONATE ——:	HERBICIDES ——:	RESIDUE TOTAL FILTERABLE-:
BORON ——:	HARDNESS ——:	SETTLEABLE MATTER ——:
BROMIDE ——:	NITRATE N ——:	STD PLATE COUNT ——:
CARBON DIOXIDE ——:	NITRITE N ——:	SULFATE ——:
CARBONATE ——:	NITROGEN ORGANIC ——:	SULFIDE ——:
CHLORIDE ——:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ——:
CHLORINE RESIDUAL ——:	OXYGEN DISSOLVED ——:	TANNIN & LIGNIN ——:
COLOR ——:	PCB ——:	TEMPERATURE ——:
CONDUCTIVITY ——:	PESTICIDES ——:	TOTAL ORGANIC CARBON —:
CORROSIVITY ——:	PHENOLS ——:	TRIHALOMETHANE ——:
CYANIDE FREE ——:	pH (S.U.) ——:	TURBIDITY (N.T.U.) ——:
CYANIDE TOTAL ——:	PHOSPHATE ORTHO ——:	

ALUMINUM ——:	COPPER ——:	SELENIUM ——:
ANTIMONY ——:	GOLD ——:	SILICA ——:
ARSENIC ——:	IRON ——:	SILICON ——:
BARIUM ——:	LEAD ——:	SILVER ——:
BERYLLIUM ——:	MAGNESIUM ——:	SODIUM ——:
CADMIUM ——:	MANGANESE ——:	THALLIUM ——:
CALCIUM ——:	MERCURY ——:	TIN ——:
CHROMIUM ——:	MOLYBDENUM ——:	TITANIUM ——:
HEXAVALENT CHROMIUM —:	NICKEL ——:	VANADIUM ——:
COBALT ——:	POTASSIUM ——:	ZINC ——:

COMMENTS: TETRACHLOROETHYLENE = 2.52

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8860

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/07/87
TIME OF COLLECTION -: 5:10 PM
DATE RECEIVED ------: 12/08/87
DATE REPORTED ------: 12/09/87

SUBMITTED BY -: MARK
SOURCE --: SRM-WP WELL 9

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLORETHYLENE = 1.04

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8859

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/07/87
TIME OF COLLECTION -: 5:00 PM
DATE RECEIVED ------: 12/08/87
DATE REPORTED ------: 12/09/87

SUBMITTED BY -: MARK
SOURCE --: SRM-WP WELL 9B

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ---------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ---------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.990

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8829

SPECIAL RESOURCE MANAGEMENT
200 NORTH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/07/87
TIME OF COLLECTION -:
DATE RECEIVED ------: 12/07/87
DATE REPORTED ------: 12/08/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #10

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.007

Michael Moore MS

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8861

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/07/87
TIME OF COLLECTION -: 4:35 PM
DATE RECEIVED ------: 12/08/87
DATE REPORTED ------: 12/09/87

SUBMITTED BY -: MARK
SOURCE --: SRM-WP WELL 11

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ---------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ---------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC --------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED --------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.005

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9197

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/18/87
TIME OF COLLECTION -: 3:15 PM
DATE RECEIVED ------: 12/18/87
DATE REPORTED ------: 12/22/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #1D

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.92

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9198

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/18/87
TIME OF COLLECTION -: 12:35 PM
DATE RECEIVED ------: 12/18/87
DATE REPORTED ------: 12/22/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #5D

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 1.31

Michael D. Moore

MICHAEL D. MOORE

ANAL[illegible]ICAL LABORATO[illegible]IES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9199

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/18/87
TIME OF COLLECTION -: 3:00 PM
DATE RECEIVED ------: 12/18/87
DATE REPORTED ------: 12/22/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #7D

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 1.54

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9200

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/18/87
TIME OF COLLECTION -: 11:32 AM
DATE RECEIVED ------: 12/18/87
DATE REPORTED ------: 12/22/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #9D

RESULTS IN MG/1(PPM)

BIOCHEMICAL OXYGEN ----:
CHEMICAL OXYGEN DEMAND --:
RESIDUE NONFILTERABLE --:
OIL & GREASE ----:

RESULTS IN ORGANISMS/100ml

FECAL COLIFORM BACTERIA -:
FECAL STREP BACTERIA ----:
TOTAL COLIFORM BACTERIA -:

RESULTS IN ORGANISMS/100ml

TOTAL COLIFORM, MPN ----:
FECAL COLIFORM, MPN ----:
PSEUDOMONAS ----:
STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----:
ALKALINITY ----:
AMMONIA DIRECT ----:
AMMONIA DISTILLED ----:
BICARBONATE ----:
BORON ----:
BROMIDE ----:
CARBON DIOXIDE ----:
CARBONATE ----:
CHLORIDE ----:
CHLORINE RESIDUAL ----:
COLOR ----:
CONDUCTIVITY ----:
CORROSIVITY ----:
CYANIDE FREE ----:
CYANIDE TOTAL ----:

CYANIDE WEAK ACID DIS --:
E P TOXICITY ----:
FLUORIDE DISTILLED ----:
FLUORIDE DIRECT ----:
HERBICIDES ----:
HARDNESS ----:
NITRATE N ----:
NITRITE N ----:
NITROGEN ORGANIC ----:
NITROGEN TOTAL KJELDAHL -:
OXYGEN DISSOLVED ----:
PCB ----:
PESTICIDES ----:
PHENOLS ----:
pH (S.U.) ----:
PHOSPHATE ORTHO ----:

PHOSPHATE TOTAL ----:
RADIUM GA-GB ----:
RESIDUE VOLATILE ----:
RESIDUE TOTAL ----:
RESIDUE TOTAL FILTERABLE-:
SETTLEABLE MATTER ----:
STD PLATE COUNT ----:
SULFATE ----:
SULFIDE ----:
SURFACTANT ----:
TANNIN & LIGNIN ----:
TEMPERATURE ----:
TOTAL ORGANIC CARBON --:
TRIHALOMETHANE ----:
TURBIDITY (N.T.U.) ----:

ALUMINUM ----:
ANTIMONY ----:
ARSENIC ----:
BARIUM ----:
BERYLLIUM ----:
CADMIUM ----:
CALCIUM ----:
CHROMIUM ----:
HEXAVALENT CHROMIUM ----:
COBALT ----:

COPPER ----:
GOLD ----:
IRON ----:
LEAD ----:
MAGNESIUM ----:
MANGANESE ----:
MERCURY ----:
MOLYBDENUM ----:
NICKEL ----:
POTASSIUM ----:

SELENIUM ----:
SILICA ----:
SILICON ----:
SILVER ----:
SODIUM ----:
THALLIUM ----:
TIN ----:
TITANIUM ----:
VANADIUM ----:
ZINC ----:

COMMENTS: TETRACHLOROETHYLENE = 1.22

Michael D. Moore

MICHAEL D. MOORE

ANALY[illegible]CAL LABORATOI[illegible]ES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9138

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE 310
BOISE , ID 83702

DATE OF COLLECTION -: 12/16/87
TIME OF COLLECTION -: 1:05 PM
DATE RECEIVED -------: 12/16/87
DATE REPORTED -------: 12/18/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #12

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ---------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED ---------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 1.830

Michael D. Moore

MICHAEL D. MOORE

ANAL TICAL LABORAT(IES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9161

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/17/87
TIME OF COLLECTION -: 11:10 AM
DATE RECEIVED ------: 12/17/87
DATE REPORTED ------: 12/18/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #13

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ---:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ---:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ---:	FECAL COLIFORM, MPN ---:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ---------:
OIL & GREASE ---------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ---------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ---------:
ALKALINITY ---------:	E P TOXICITY ---------:	RADIUM GA-GB ---------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ---------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ---------:
BICARBONATE ---------:	HERBICIDES ---------:	RESIDUE TOTAL FILTERABLE-:
BORON ---------:	HARDNESS ---------:	SETTLEABLE MATTER ------:
BROMIDE ---------:	NITRATE N ---------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ---------:	NITRITE N ---------:	SULFATE ---------:
CARBONATE ---------:	NITROGEN ORGANIC --------:	SULFIDE ---------:
CHLORIDE ---------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ---------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ---------:	TANNIN & LIGNIN ---------:
COLOR ---------:	PCB ---------:	TEMPERATURE ---------:
CONDUCTIVITY ---------:	PESTICIDES ---------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ---------:	PHENOLS ---------:	TRIHALOMETHANE ---------:
CYANIDE FREE ---------:	pH (S.U.) ---------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ---------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ---------:	COPPER ---------:	SELENIUM ---------:
ANTIMONY ---------:	GOLD ---------:	SILICA ---------:
ARSENIC ---------:	IRON ---------:	SILICON ---------:
BARIUM ---------:	LEAD ---------:	SILVER ---------:
BERYLLIUM ---------:	MAGNESIUM ---------:	SODIUM ---------:
CADMIUM ---------:	MANGANESE ---------:	THALLIUM ---------:
CALCIUM ---------:	MERCURY ---------:	TIN ---------:
CHROMIUM ---------:	MOLYBDENUM ---------:	TITANIUM ---------:
HEXAVALENT CHROMIUM ----:	NICKEL ---------:	VANADIUM ---------:
COBALT ---------:	POTASSIUM ---------:	ZINC ---------:

COMMENTS: TETRACHLOROETHYLENE = 1.250

Michael D. Moore

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ANAL TICAL LABORAT(RIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9201

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/18/87
TIME OF COLLECTION -: 3:27 PM
DATE RECEIVED ------: 12/18/87
DATE REPORTED ------: 12/22/87

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #12D

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 1.51

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9202

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/18/87
TIME OF COLLECTION -: 1:30 PM
DATE RECEIVED ——: 12/18/87
DATE REPORTED ——: 12/22/87

SUBMITTED BY -:
SOURCE —: SRM-WP-WELL #13D

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ——:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ——:
CHEMICAL OXYGEN DEMAND —:	FECAL STREP BACTERIA ——:	FECAL COLIFORM, MPN ——:
RESIDUE NONFILTERABLE —:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ——:
OIL & GREASE ——:		STAPHYLOCOCCUS / gram —:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ——:	CYANIDE WEAK ACID DIS —:	PHOSPHATE TOTAL ——:
ALKALINITY ——:	E P TOXICITY ——:	RADIUM GA-GB ——:
AMMONIA DIRECT ——:	FLUORIDE DISTILLED ——:	RESIDUE VOLATILE ——:
AMMONIA DISTILLED ——:	FLUORIDE DIRECT ——:	RESIDUE TOTAL ——:
BICARBONATE ——:	HERBICIDES ——:	RESIDUE TOTAL FILTERABLE-:
BORON ——:	HARDNESS ——:	SETTLEABLE MATTER ——:
BROMIDE ——:	NITRATE N ——:	STD PLATE COUNT ——:
CARBON DIOXIDE ——:	NITRITE N ——:	SULFATE ——:
CARBONATE ——:	NITROGEN ORGANIC ——:	SULFIDE ——:
CHLORIDE ——:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ——:
CHLORINE RESIDUAL ——:	OXYGEN DISSOLVED ——:	TANNIN & LIGNIN ——:
COLOR ——:	PCB ——:	TEMPERATURE ——:
CONDUCTIVITY ——:	PESTICIDES ——:	TOTAL ORGANIC CARBON —:
CORROSIVITY ——:	PHENOLS ——:	TRIHALOMETHANE ——:
CYANIDE FREE ——:	pH (S.U.) ——:	TURBIDITY (N.T.U.) ——:
CYANIDE TOTAL ——:	PHOSPHATE ORTHO ——:	

ALUMINUM ——:	COPPER ——:	SELENIUM ——:
ANTIMONY ——:	GOLD ——:	SILICA ——:
ARSENIC ——:	IRON ——:	SILICON ——:
BARIUM ——:	LEAD ——:	SILVER ——:
BERYLLIUM ——:	MAGNESIUM ——:	SODIUM ——:
CADMIUM ——:	MANGANESE ——:	THALLIUM ——:
CALCIUM ——:	MERCURY ——:	TIN ——:
CHROMIUM ——:	MOLYBDENUM ——:	TITANIUM ——:
HEXAVALENT CHROMIUM —:	NICKEL ——:	VANADIUM ——:
COBALT ——:	POTASSIUM ——:	ZINC ——:

COMMENTS: TETRACHLOROETHYLENE = 1.14

MICHAEL D. MOORE

PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 130

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 01/08/88
TIME OF COLLECTION -: 11:52
DATE RECEIVED -------: 01/08/88
DATE REPORTED -------: 01/20/88

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL 11F (purge water)

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM --:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROTHYLENE = 0.003 PPM
1,1,1-TRICHLOROETHANE = 0.002 PPM

RECEIVED
JAN 2 1 1988

ANAL[illegible]TICAL LABORAT[illegible]RIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 243

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -: B. Hunn
SOURCE --: SRM-WP-WELL ~~#~~ #14

DATE OF COLLECTION -: 01/13/88
TIME OF COLLECTION -: 2:20 PM
DATE RECEIVED ------: 01/13/88
DATE REPORTED ------: 01/21/88

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
[illegible]RON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
[illegible]OMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (2.0 PPB
1,1,1-TRICHLOROETHANE = TRACE
METHYLENE CHLORIDE = TRACE
*TRACE = (1.0

Michael D. Moore

MICHAEL D. MOORE

ANAL TICAL LABORAT(RIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 240

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #15

DATE OF COLLECTION -: 01/13/88
TIME OF COLLECTION -: 12:15 PM
DATE RECEIVED -------: 01/13/88
DATE REPORTED -------: 01/21/88

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ---:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----------:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLORETHYLENE = 70.0 PPB
P,M,O-DICHLOROBENZENE = TRACE
TRICHLOROETHYLENE = TRACE
*TRACE = (1.0

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 241

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #16

DATE OF COLLECTION -: 01/13/88
TIME OF COLLECTION -: 11:20 AM
DATE RECEIVED ------: 01/13/88
DATE REPORTED ------: 01/21/88

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ---:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLORETHYLENE = 13.0 PPB
METHYLENE CHLORIDE = TRACE
*TRACE = <1.0

Michael D. Moore

MICHAEL D. MOORE

ANAL[illegible]TICAL LABORAT[illegible]RIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 242

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 01/13/88
TIME OF COLLECTION -: 2:55 PM
DATE RECEIVED ------: 01/13/88
DATE REPORTED ------: 01/28/88

SUBMITTED BY -:
SOURCE --: SRM-WP-WELL #17

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ---:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ---------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM -----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 1,160.0 PPB TRICHLOROETHYLENE = 12.0 PPB

Michael D. Moore

MICHAEL D. MOORE

SERCO Laboratories

1931 West County Road C2. St Paul. Minnesota 55113 (612) 636-7173

RECEIVED
St Paul, Minnesota
JAN 21 1988

SRM, INC. / BOISE

LABORATORY ANALYSIS REPORT NO: 64 PAGE 1
01/20/88

Special Resource Management
200 North Fourth, Suite 206
Boise, ID 83702

Mr. Brad Harr

DATE COLLECTED: 01/13/88
DATE RECEIVED: 01/14/88
COLLECTED BY: CLIENT
PICKED UP BY: CLIENT
SAMPLE TYPE: WATER
SOIL

B. Harr S-25

SERCO SAMPLE NO:	1168	1178	1183	1198	1208
SAMPLE DESCRIPTION:	SRM-MP-WELL 14A (A) B. Harr 14A	WELL 15A	WELL 16A	WELL 17A	
ANALYSIS:					
Benzene, ug/L	<1.0	<1.0	<1.0	<1.0	-
Bromoform, ug/L	<6.0	<6.0	<6.0	<6.0	-
Bromomethane, ug/L	<20	<20	<20	<20	-
Bromodichloromethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
Carbon tetrachloride, ug/L	<3.0	<3.0	<3.0	<3.0	-
Chlorobenzene, ug/L	<1.0	<1.0	<1.0	<1.0	-
Chloroethane, ug/L	<5.0	<5.0	<5.0	<5.0	-
2-Chloroethylvinyl ether, ug/L	<10	<10	<10	<10	-
Chloroform, ug/L	<1.0	<1.0	<1.0	<1.0	-
Chloromethane, ug/L	<6.0	<6.0	<6.0	<6.0	-
Dibromochloromethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,2 Dichlorobenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,3 Dichlorobenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,4 Dichlorobenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,1 Dichloroethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,2 Dichloroethane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,1 Dichloroethylene, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,2 Dichloroethylene, trans, ug/L	<1.0	<1.0	<1.0	4.5	-
1,2 Dichloropropane, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,3 Dichloro-1-propylene, trans, ug/L	<2.0	<2.0	<2.0	<2.0	-
1,3 Dichloro-1-propylene, cis, ug/L	<1.0	<1.0	<1.0	<1.0	-
Ethylbenzene, ug/L	<2.0	<2.0	<2.0	<2.0	-
Methylene chloride, ug/L	<9.0	<9.0	<9.0	<9.0	-
1,1,2,2 Tetrachloroethane, ug/L	<3.0	<3.0	<3.0	26	-

Approved by:

< means "not detected at this level". 1 mg = 1000 ug.

continued

Member

SERCO Laboratories

1931 West County Road C2, St. Paul, Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 64 PAGE 2
01/20/88

SERCO SAMPLE NO:	1168	1178	1188	1198	1208
SAMPLE DESCRIPTION:	SRM-WP-WELL 14A (A) B. Haw 14A	WELL 15A	WELL 16A	WELL 17A	5-25
ALYSIS:					
etrachloroethylene, ug/L	<1.0	35	14	2100	-
luene, ug/L	<1.0	<1.0	<1.0	<1.0	-
1,1 Trichloroethane, ug/L	<1.0	<1.0	<1.0	<1.0	-
1,2 Trichloroethane, ug/L	<1.0	<1.0	<1.0	<1.0	-
ichloroethylene, ug/L	<1.0	<1.0	<1.0	13	-
ichlorofluoromethane, ug/L	<1.0	<1.0	<1.0	<1.0	-
nyl chloride, ug/L	<6.0	<6.0	<6.0	<6.0	-
co[illegible]n, ug/L	<100	<100	<100	<100	-
ylonitrile, ug/L	<10	<10	<10	<10	-
nzene, ug/kg	-	-	-	-	<2.0
omodichloromethane, ug/kg	-	-	-	-	<20
omoform, ug/kg	-	-	-	-	<30
omomethane, ug/kg	-	-	-	-	<100
rbon tetrachloride, ug/kg	-	-	-	-	<5.0
lorobenzene, ug/kg	-	-	-	-	<3.0
oroethane, ug/kg	-	-	-	-	<11
Chloroethylvinyl ether, ug/kg	-	-	-	-	<30
loroform, ug/kg	-	-	-	-	<2.0
oromethane, ug/kg	-	-	-	-	<25
romochloromethane, ug/kg	-	-	-	-	<14
2 Dichlorobenzene, ug/kg	-	-	-	-	<4.0
3 Dichlorobenzene, ug/kg	-	-	-	-	<4.0
4 Dichlorobenzene, ug/kg	-	-	-	-	<4.0
1 Dichloroethane, ug/kg	-	-	-	-	<5.0

roved by: < means "not detected at this level". 1 mg = 1000 ug. continued

SERCO Laboratories

1931 West County Road C2. St Paul. Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 64 PAGE 3
01/20/86

SERCO SAMPLE NO:	1168	1178	1188	1198	1208
SAMPLE DESCRIPTION:	SRM-WP-WELL 14B (A) 14A	WELL 15A	WELL 15A	WELL 17A	5-25
ALYSIS:					
.2 Dichloroethane, ug/kg	-	-	-	-	<6.0
1 Dichloroethylene, ug/kg	-	-	-	-	<2.0
2 Dichloroethylene, trans, ug/kg	-	-	-	-	<2.0
2 Dichloropropane, ug/kg	-	-	-	-	<5.0
3 Dichloro-1-propylene, cis, ug/kg	-	-	-	-	<11
3 Dichloro-1-propylene, trans, ug/kg	-	-	-	-	<3.0
ny[illegible]nzene, ug/kg	-	-	-	-	<4.0
ethylene chloride, ug/kg	-	-	-	-	<25
.1,2,2 Tetrachloroethane, ug/kg	-	-	-	-	<13
trachloroethylene, ug/kg	-	-	-	-	<2.0
luene, ug/kg	-	-	-	-	<2.0
1,1 Trichloroethane, ug/kg	-	-	-	-	<3.0
lchloroethylene, ug/kg	-	-	-	-	<1.0
lchlorofluoromethane, ug/kg	-	-	-	-	<1.0
nyl onloride, ug/kg	-	-	-	-	<10
1,2 Trichloroethane, ug/kg	-	-	-	-	<7.0
rolein, ug/kg	-	-	-	-	<600
rylonitrile, ug/kg	-	-	-	-	<230

proved by: < means "not detected at this level". 1 mg = 1000 ug.

continued

Member

SERCO Laboratories

1931 West County Road C2. St. Paul. Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 64 PAGE 4
01/20/88

SERCO SAMPLE NO: 1218
SAMPLE DESCRIPTION: SRM-WP
B. Hall S-24A

ALYSIS:

nzene, ug/kg	<2.0
omodichloromethane, ug/kg	<20
romoform, ug/kg	<30
romomethane, ug/kg	<100
rbon tetrachloride, ug/kg	<5.0
hlorobenzene, ug/kg	<3.0
loroethane, ug/kg	<11
roethylvinyl ether, ug/kg	<30
loroform, ug/kg	<2.0
loromethane, ug/kg	<25
bromochloromethane, ug/kg	<14
.2 Dichlorobenzene, ug/kg	<4.0
.3 Dichlorobenzene, ug/kg	<4.0
.4 Dichlorobenzene, ug/kg	<4.0
,1 Dichloroethane, ug/kg	<5.0
2 Dichloroethane, ug/kg	<6.0
,1 Dichloroethylene, ug/kg	<2.0
2 Dichloroethylene, trans, ug/kg	<2.0
.2 Dichloropropane, ug/kg	<5.0
.3 Dichloro-1-propylene, cis, ug/kg	<11
3 Dichloro-1-propylene, trans, ug/kg	<3.0
hylbenzene, ug/kg	<4.0
thylene chloride, ug/kg	<25

pproved by: < means "not detected at this level". 1 mg = 1000 ug.

continued

SERCO Laboratories

1931 West County Road C2. St Paul. Minnesota 55113 (612) 636-7173

St Paul Minnesota • Cedar Falls Iowa

LABORATORY ANALYSIS REPORT NO: 64 PAGE 5
01/20/88

SERCO SAMPLE NO: 1218
SAMPLE DESCRIPTION: SRM-WP
5-24A

B Hart

ALYSIS:	
.1,2,2 Tetrachloroethane, ug/kg	<13
etrachloroethylene, ug/kg	28
oluene, ug/kg	<2.0
1,1 Trichloroethane, ug/kg	<3.0
richloroethylene, ug/kg	<1.0
ichlorofluoromethane, ug/kg	<1.0
inyl chloride, ug/kg	<10
.1,2 Trichloroethane, ug/kg	<7.0
rolein, ug/kg	<600
crylonitrile, ug/kg	<230

All analyses were performed using EPA or other recognized metnodologies.

Report submitted by,

Diane J. Anderson DJA

Diane J. Anderson
Project Manager

< means "not detected at this level". 1 mg = 1000 ug.

Member

Log No. 01-1168

IDAHO DEPARTMENT OF HEALTH AND WELFARE
BUREAU OF LABORATORIES
2220 Old Penitentiary Rd.
Boise, Idaho 83712

TOXICOLOGY SAMPLE SUBMITTING AND REPORT FORM

TYPE OF SAMPLE: SRM-WP #2 (water sample from well)

SOURCE OF SAMPLE: well

DATE COLLECTED 11/2/87 DATE RECEIVED 11/2/87

ANALYSIS REQUESTED: Volatile Petroleum Products Analysis

SUBMITTED BY: MARK KEALEY

SAMPLE AND SHIPPING CONTAINER CONDITION: 250 ml glass bottle narrow mouth

MISCELLANEOUS INFORMATION

CHAIN OF CUSTODY? Yes [✓] No [ ]. If yes, complete items #1-5.

(1) Custody Records Present? Yes [✓] No [ ]

(2) Custody Seal present and intact? Yes [ ] No [✓]

(3) Sample tags or labels present? Yes [✓] No [ ]

(4) Agreement with documentation? Yes [✓] No [ ]

(5) Method of Shipment: Direct delivery by Mark Kealy same day of sample

REPORT RESULTS TO: Please phone results in Wed. morning 11/4/87

Name Special Resource Mgt.

Address 200 N 4th Suite 206

City/Zip Boise Id. 83702 Phone Number 345-3667

ALL SAMPLES WILL BE RETURNED OR DISCARDED AFTER 90 DAYS

SAMPLE Wt/Vol DATE REPORTED 11/4/87

ANALYTICAL RESULTS Contains Aromatic hydrocarbons some of which are consistent with diesel #2.

CERTIFIED Carol Dooley

RECEIVED
NOV 06 1987
SRM, INC. / BOISE

Log No. ~~87-1160~~

87-1166 F

IDAHO DEPARTMENT OF HEALTH AND WELFARE
BUREAU OF LABORATORIES
2220 Old Penitentiary Rd.
Boise, Idaho 83712

TOXICOLOGY SAMPLE SUBMITTING AND REPORT FORM

TYPE OF SAMPLE: SRM - WP #1 (water sample from well)

SOURCE OF SAMPLE: WELL

DATE COLLECTED 11/2/87 DATE RECEIVED 11/2/87

ANALYSIS REQUESTED: Volatile Petroleum Products Analysis

SUBMITTED BY: MARK KRACEY

SAMPLE AND SHIPPING CONTAINER CONDITION: 250 ml glass bottle narrow mouth

MISCELLANEOUS INFORMATION

CHAIN OF CUSTODY? Yes [✓] No [ ]. If yes, complete items #1-5.

(1) Custody Records Present? Yes [✓] No [ ]

(2) Custody Seal present and intact? Yes [ ] No [✓]

(3) Sample tags or labels present? Yes [✓] No [ ]

(4) Agreement with documentation? Yes [✓] No [ ]

(5) Method of Shipment: Direct delivery by Mark Kracey same day of sample

REPORT RESULTS TO: Please phone results by Wed. morning 11/4/87

Name Special Resource Mgt.

Address 240 N 4th Suite #206

City/Zip Boise Id 83702 Phone Number 345-3667

ALL SAMPLES WILL BE RETURNED OR DISCARDED AFTER 90 DAYS

SAMPLE Wt/Vol DATE REPORTED 11/4/87

ANALYTICAL RESULTS Contains hexane and hydrocarbons some of which are consistent with diesel #2.

CHEMIST: Ron Donley

RECEIVED
NOV 06 1987
SRM, INC. / BOISE

KBR

Log No. 87-1168

IDAHO DEPARTMENT OF HEALTH AND WELFARE
BUREAU OF LABORATORIES
2220 Old Penitentiary Rd.
Boise, Idaho 83712

TOXICOLOGY SAMPLE SUBMITTING AND REPORT FORM

TYPE OF SAMPLE: SRM-WP #3 (WATER FROM WELL SAMPLE

SOURCE OF SAMPLE: WELL

DATE COLLECTED 11/2/87 DATE RECEIVED 11/2/87

ANALYSIS REQUESTED: Volatile Petroleum Products Analysis

SUBMITTED BY: Mark KRALOY

SAMPLE AND SHIPPING CONTAINER CONDITION: 250 ml glass bottle narrow mouth

MISCELLANEOUS INFORMATION

CHAIN OF CUSTODY? Yes [✓] No [ ]. If yes, complete items #1-5.

(1) Custody Records Present? Yes [✓] No [ ]

(2) Custody Seal present and intact? Yes [ ] No [✓]

(3) Sample tags or labels present? Yes [✓] No [ ]

(4) Agreement with documentation? Yes [✓] No [ ]

(5) Method of Shipment: Direct delivery by Mark Kraloy same day of sample

REPORT RESULTS TO: Please phone results by Wed morning 11/4/87

Name Special Resource Mgt.

Address 200 N. 4th Suite 206

City/Zip Boise Id. 83702

ALL SAMPLES WILL BE RETURNED OR DISCARDED AFTER 90 DAYS

Phone Number 345-3667

SAMPLE Wt/Vol

DATE REPORTED 11/4/87

ANALYTICAL RESULTS contains heavy end hydrocarbons some of which are consistent with diesel #2.

CHEMIST: Ron Dooley

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NOV 06 1987
SRM, INC. / BOISE

Log No. 87-1183

IDAHO DEPARTMENT OF HEALTH AND WELFARE
BUREAU OF LABORATORIES
2220 Old Penitentiary Rd.
Boise, Idaho 83712

TOXICOLOGY SAMPLE SUBMITTING AND REPORT FORM

TYPE OF SAMPLE: WATER

SOURCE OF SAMPLE: WELL SRM-WP-W-1001

DATE COLLECTED 11/12/87 DATE RECEIVED 11/12/87

ANALYSIS REQUESTED: TETRACHLOROETHENE

SUBMITTED BY: MARK KRALEY

SAMPLE AND SHIPPING CONTAINER CONDITION: VOA Bottles
Sample + Dupl. ok

MISCELLANEOUS INFORMATION

CHAIN OF CUSTODY? Yes [✓] No [ ]. If yes, complete items #1-5.

(1) Custody Records Present? Yes [✓] No [ ]

(2) Custody Seal present and intact? Yes [ ] No [✓]

(3) Sample tags or labels present? Yes [✓] No [ ]

(4) Agreement with documentation? Yes [✓] No [ ]

(5) Method of Shipment: DIRECT DELIVERY

REPORT RESULTS TO:

Name SPECIAL RESOURCE MANAGEMENT

Address 200 N. 4th Suite 206

City/Zip Boise ID 83702 Phone Number (208) 345-3667

ALL SAMPLES WILL BE RETURNED OR DISCARDED AFTER 90 DAYS

SAMPLE Wt/Vol DATE REPORTED

ANALYTICAL RESULTS approx. 16 ppm Tetrachloroethene
NO 1,1,1-Trichloroethane found
Tetrachloroethene confirmed CHEMIST
by GC/MS

NOV 16 1987

Special Resource Management
213-73045-01

Date extracted: N/A
Date analyzed: 11/25/87

Sample ID: WP-Well #1A

Methodology: EPA 624 VOLATILE COMPOUNDS

Compound	Concentration ppb (ug/L)	Reporting Level ppb (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	3	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	1
Trans-1,3-dichloropropane	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	1228	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %
1,2-Dichloroethane-d4 83.0
Toluene-d8 134.2
Bromofluorobenzene 84.7

PSI Lab

Special Resource Management
213-73045-01

Date extracted: N/A
Date analyzed: 11/25/87

Sample ID: WP-Well #6 2:25 p.m.

Methodology: EPA 624 VOLATILE COMPOUNDS

Compound	Concentration ppb (ug/L)	Reporting Level ppb (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	1
Trans-1,3-dichloropropane	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	19	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	18	5
Styrene	BDL	5
Total xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %
1,2-Dichloroethane-d4 84.6
Toluene-d8 136.2
Bromofluorobenzene 83.5

Special Resource Management
213-73045-01

Date extracted: N/A
Date analyzed: 11/25/87

Sample ID: WP-Well #8 3:15 p.m.

Methodology: EPA 624 VOLATILE COMPOUNDS

Compound	Concentration ppb (ug/L)	Reporting Level ppb (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	17	1
Trans-1,3-dichloropropane	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	77	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	38	5
Styrene	BDL	5
Total xylenes	18	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL= Below detection limit
** = Detected but below reporting limit

Surrogate recoveries, %
1,2-Dichloroethane-d4 83.2
Toluene-d8 71.2
Bromofluorobenzene 78.6

Special Resource Management
213-73045-01

Date extracted: 11/25/87
Date analyzed: 11/29/87

QA REPORT

Methodology: SW 8240 VOLATILE COMPOUNDS

Compound	Original	Duplicate	R	Spike Recovery
Chloromethane	BDL	BDL	0	NS
Bromomethane	BDL	BDL	0	NS
Vinyl chloride	BDL	BDL	0	NS
Chloroethane	BDL	BDL	0	NS
Dichloromethane	4	1	3	137.5%
Acetone	BDL	BDL	0	NS
Carbon disulfide	BDL	BDL	0	NS
Trichlorofluoromethane	BDL	BDL	0	NS
1,1-Dichloroethene	BDL	BDL	0	59.6%
1,1-Dichloroethane	BDL	BDL	0	64.7%
Trans-1,2-dichloroethene	BDL	BDL	0	59.6%
Chloroform	BDL	BDL	0	123.1%
1,2-Dichloroethane	3.5	0.1	3.4	109.5%
2-Butanone	1.5	2.4	0.9	114.5%
1,1,1-Trichloroethane	BDL	BDL	0	102.8%
Carbon tetrachloride	BDL	BDL	0	116.0%
Vinyl acetate	BDL	BDL	0	NS
Bromodichloromethane	BDL	BDL	0	100.9%
1,2-Dichloropropane	BDL	BDL	0	102.4%
Cis-1,3-dichloropropene	BDL	BDL	0	127.1%
Trichloroethene	BDL	BDL	0	122.6%
Dibromochloromethane	BDL	BDL	0	106.0%
1,1,2-Trichloroethane	BDL	BDL	0	145.1%
Benzene	BDL	BDL	0	145.9%
Trans-1,3-dichloropropane	BDL	BDL	0	126.8%
2-Chloroethylvinylether	BDL	BDL	0	154.5%
Bromoform	BDL	BDL	0	NS
2-Hexanone	BDL	BDL	0	NS
4-Methyl-2-pentanone	BDL	BDL	0	NS
Tetrachloroethene	BDL	BDL	0	121.3%
1,1,2,2-Tetrachloroethane	BDL	BDL	0	141.5%
Toluene	0.25	0.0	0.25	NS
Chlorobenzene	BDL	BDL	0	126.9%
Ethylbenzene	0.1	0.4	0.3	NS
Styrene	BDL	BDL	0	NS
Total xylenes	BDL	BDL	0	NS
1,2-Dichlorobenzene	BDL	BDL	0	NS
1,3-Dichlorobenzene	BDL	BDL	0	NS
1,4-Dichlorobenzene	BDL	BDL	0	NS

BDL= Below detection limit
NS = Not spiked

Date Extracted: N/A
Date Analyzed: 12/8/87

Sample ID: SRM-WP-WELL #9a, 12/07/87, 5:10

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	10
Acetone	BDL	10
Carbon disulfide	BDL	10
1,1-Dichloroethene	BDL	10
1,1-Dichloroethane	BDL	10
Trans-1,2-dichloroethene	BDL	10
Chloroform	BDL	10
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	10
1,1,1-Trichloroethane	BDL	10
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	10
1,2-Dichloropropane	BDL	10
Cis-1,3-dichloropropene	BDL	10
Trichloroethene	7.5	3
Dibromochloromethane	BDL	10
1,1,2-Trichloroethane	BDL	10
Benzene	BDL	1
Trans-1,3-dichloropropane	BDL	10
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	10
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	660	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	83.4
Toluene-d8	108.2
Bromofluorobenzene	100.8

APPENDIX F

MISCELLANEOUS SAMPLE RESULTS

ANALYTICAL LABORATORIES, INC.

1604 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8764

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/02/87
TIME OF COLLECTION -: 5:00 PM
DATE RECEIVED ------: 12/03/87
DATE REPORTED ------: 12/08/87

SUBMITTED BY -:
SOURCE --: SRM-WP-DRUM #1

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.358

Michael Moore MS

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8765

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/02/87
TIME OF COLLECTION -: 5:00 PM
DATE RECEIVED ------: 12/03/87
DATE REPORTED ------: 12/08/87

SUBMITTED BY -:
SOURCE --: SRM-WP-DRUM #2

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
[illegible]OMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM --:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.332

Michael D Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8766

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE —: SRM-WP-DRUM #3

DATE OF COLLECTION -: 12/02/87
TIME OF COLLECTION -: 4:25 PM
DATE RECEIVED ———: 12/03/87
DATE REPORTED ———: 12/08/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ——:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ——:
CHEMICAL OXYGEN DEMAND —:	FECAL STREP BACTERIA ——:	FECAL COLIFORM, MPN ——:
RESIDUE NONFILTERABLE —:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ———:
OIL & GREASE ———:		STAPHYLOCOCCUS / gram —:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ———:	CYANIDE WEAK ACID DIS —:	PHOSPHATE TOTAL ———:
ALKALINITY ———:	E P TOXICITY ———:	RADIUM GA-GB ———:
AMMONIA DIRECT ———:	FLUORIDE DISTILLED ——:	RESIDUE VOLATILE ———:
AMMONIA DISTILLED ——:	FLUORIDE DIRECT ———:	RESIDUE TOTAL ———:
BICARBONATE ———:	HERBICIDES ———:	RESIDUE TOTAL FILTERABLE-:
BORON ———:	HARDNESS ———:	SETTLEABLE MATTER ——:
BROMIDE ———:	NITRATE N ———:	STD PLATE COUNT ———:
CARBON DIOXIDE ———:	NITRITE N ———:	SULFATE ———:
CARBONATE ———:	NITROGEN ORGANIC ———:	SULFIDE ———:
CHLORIDE ———:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ———:
CHLORINE RESIDUAL ——:	OXYGEN DISSOLVED ———:	TANNIN & LIGNIN ———:
COLOR ———:	PCB ———:	TEMPERATURE ———:
CONDUCTIVITY ———:	PESTICIDES ———:	TOTAL ORGANIC CARBON —:
CORROSIVITY ———:	PHENOLS ———:	TRIHALOMETHANE ———:
CYANIDE FREE ———:	pH (S.U.) ———:	TURBIDITY (N.T.U.) ——:
CYANIDE TOTAL ———:	PHOSPHATE ORTHO ———:	

ALUMINUM ———:	COPPER ———:	SELENIUM ———:
ANTIMONY ———:	GOLD ———:	SILICA ———:
ARSENIC ———:	IRON ———:	SILICON ———:
BARIUM ———:	LEAD ———:	SILVER ———:
BERYLLIUM ———:	MAGNESIUM ———:	SODIUM ———:
CADMIUM ———:	MANGANESE ———:	THALLIUM ———:
CALCIUM ———:	MERCURY ———:	TIN ———:
CHROMIUM ———:	MOLYBDENUM ———:	TITANIUM ———:
HEXAVALENT CHROMIUM —:	NICKEL ———:	VANADIUM ———:
COBALT ———:	POTASSIUM ———:	ZINC ———:

COMMENTS: TETRACHLOROETHYLENE = 0.007

Michael Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8800

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -:
SOURCE --: SRM - WELL #9 PIT

DATE OF COLLECTION -: 12/04/87
TIME OF COLLECTION -: 4:35 PM
DATE RECEIVED ------: 12/04/87
DATE REPORTED ------: 12/08/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----------:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE--:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----------:
[illegible]MIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL --:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----------:	TANNIN & LIGNIN ----------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = 0.136

Michael D Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8767

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 12/02/87
TIME OF COLLECTION -: 4:45 PM
DATE RECEIVED ------: 12/03/87
DATE REPORTED ------: 12/08/87

SUBMITTED BY -: WELL #10 PIT MK
SOURCE --: SRM-WP-~~DRUM~~ #10 PIT

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND -:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.005

Michael D. Moore

MICHAEL D. MOORE

Log No. 87-1185

I. IO DEPARTMENT OF HEALTH AN. WELFARE
BUREAU OF LABORATORIES
2220 Old Penitentiary Rd.
Boise, Idaho 83712

TOXICOLOGY SAMPLE SUBMITTING AND REPORT FORM

TYPE OF SAMPLE: WATER

SOURCE OF SAMPLE: Grab SRM-WP-W-~~001~~ 1003 MK

DATE COLLECTED 11/12/87 DATE RECEIVED 11/12/87

ANALYSIS REQUESTED: TETRACHLOROETHENE

SUBMITTED BY: MARK KEALEY

SAMPLE AND SHIPPING CONTAINER CONDITION: VOA Bottles
Sample contains bubbles (to be discarded); Dup. = OK JR

MISCELLANEOUS INFORMATION

CHAIN OF CUSTODY? Yes [✓] No [ ]. If yes, complete items #1-5.

(1) Custody Records Present? Yes [✓] No [ ]

(2) Custody Seal present and intact? Yes [ ] No [✓]

(3) Sample tags or labels present? Yes [✓] No [ ]

(4) Agreement with documentation? Yes [✓] No [ ]

(5) Method of Shipment: DIRECT Delivery

REPORT RESULTS TO:

Name SPECIAL RESOURCE MANAGEMENT

Address 700 N. 4th Suite 206

City/Zip Boise Id 83702 Phone Number 345-3667

ALL SAMPLES WILL BE RETURNED OR DISCARDED AFTER 90 DAYS

SAMPLE Wt/Vol DATE REPORTED

ANALYTICAL RESULTS No tetrachloroethene or 1,1,1-Trichloroethane found. MDL Tetracl-ethene = 0.1 ppb

CHEMIST

NOV 16 1987

Log No. [illegible]

IDAHO DEPARTMENT OF HEALTH AND WELFARE
BUREAU OF LABORATORIES
2220 Old Penitentiary Rd.
Boise, Idaho 83712

TOXICOLOGY SAMPLE SUBMITTING AND REPORT FORM

TYPE OF SAMPLE: DEBRIS

SOURCE OF SAMPLE: SRM-WP-DB-001

DATE COLLECTED 11/12/87 DATE RECEIVED 11/12/87

ANALYSIS REQUESTED: TETRACHLOROETHENE

SUBMITTED BY: MARK KRALEY

SAMPLE AND SHIPPING CONTAINER CONDITION: ~~VOA~~ Bottles 250 ml glass jar with teflon lined lid

MISCELLANEOUS INFORMATION

CHAIN OF CUSTODY? Yes [✓] No [ ]. If yes, complete items #1-5.

(1) Custody Records Present? Yes [✓] No [ ]

(2) Custody Seal present and intact? Yes [ ] No [✓]

(3) Sample tags or labels present? Yes [✓] No [ ]

(4) Agreement with documentation? Yes [✓] No [ ]

(5) Method of Shipment: DIRECT DELIVERY

REPORT RESULTS TO:

Name SPECIAL RESOURCE MANAGEMENT

Address 200 N. 4th Suite 206 B

City/Zip Boise Id 83702

ALL SAMPLES WILL BE RETURNED OR DISCARDED AFTER 90 DAYS

Phone Number (208) 345-3667

SAMPLE Wt/Vol 16.6 grams DATE REPORTED 11/19/87

ANALYTICAL RESULTS Tetrachloroethylene approx. 15.1 ppb This is a Tentative ID - would need to be confirmed ~~for~~ before any CHEMIST [illegible]

legal action could be taken.

BJK

NOV 23 1987

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8343

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE 10
BOISE , ID 83702

DATE OF COLLECTION -: 11/12/87
TIME OF COLLECTION -:
DATE RECEIVED ------: 11/12/87
DATE REPORTED ------: 12/08/87

SUBMITTED BY -: BRAD
SOURCE --: SRM-WP-DB-002

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.250

Michael D Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8551

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

SUBMITTED BY -: PAT STOLL
SOURCE --: SRM-WP-BG-001

DATE OF COLLECTION -: 11/20/87
TIME OF COLLECTION -:
DATE RECEIVED ------: 11/23/87
DATE REPORTED ------: 12/02/87

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ----:	RESIDUE VOLATILE ----------:
AMMONIA DISTILLED ----:	FLUORIDE DIRECT ----------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ----:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ----:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ----:	OXYGEN DISSOLVED ----:	TANNIN & LIGNIN ----:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON --:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ----:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ----:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TRETRACHLOROETHYLENE = <0.250

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 8581

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE #10
BOISE , ID 83702

DATE OF COLLECTION -: 11/23/87
TIME OF COLLECTION -: 3:55 PM
DATE RECEIVED -------: 11/24/87
DATE REPORTED -------: 12/02/87

SUBMITTED BY -:
SOURCE --: SRM-WP-DECON

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ------:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE ---:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram ---:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS ---:	PHOSPHATE TOTAL ----------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ----------:	FLUORIDE DISTILLED ------:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED -------:	FLUORIDE DIRECT ---------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER -------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT ----------:
CARBON DIOXIDE ----------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC ---------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL -------:	OXYGEN DISSOLVED --------:	TANNIN & LIGNIN ---------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ----:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ----------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) -------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO ---------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.005

Michael D. Moore

MICHAEL D. MOORE

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd ST. BOISE, IDAHO 83703
PHONE 342-5515 AREA CODE 208

WATER QUALITY REPORT

SAMPLE NUMBER - 9140

SPECIAL RESOURCE MANAGEMENT
200 NORTH 4TH ST - SUITE 310
BOISE , ID 83702

DATE OF COLLECTION -: 12/16/87
TIME OF COLLECTION -: 9:10 AM
DATE RECEIVED ------: 12/16/87
DATE REPORTED ------: 12/18/87

SUBMITTED BY -:
SOURCE --: SRM-WP-DECON #2

RESULTS IN MG/1(PPM)	RESULTS IN ORGANISMS/100ml	RESULTS IN ORGANISMS/100ml
BIOCHEMICAL OXYGEN ----:	FECAL COLIFORM BACTERIA -:	TOTAL COLIFORM, MPN ----:
CHEMICAL OXYGEN DEMAND --:	FECAL STREP BACTERIA ----:	FECAL COLIFORM, MPN ----:
RESIDUE NONFILTERABLE --:	TOTAL COLIFORM BACTERIA -:	PSEUDOMONAS ----------:
OIL & GREASE ----------:		STAPHYLOCOCCUS / gram --:

RESULTS IN MG/L (PPM) UNLESS NOTED

ACIDITY ----------:	CYANIDE WEAK ACID DIS --:	PHOSPHATE TOTAL ------:
ALKALINITY ----------:	E P TOXICITY ----------:	RADIUM GA-GB ----------:
AMMONIA DIRECT ---------:	FLUORIDE DISTILLED -----:	RESIDUE VOLATILE -------:
AMMONIA DISTILLED ------:	FLUORIDE DIRECT --------:	RESIDUE TOTAL ----------:
BICARBONATE ----------:	HERBICIDES ----------:	RESIDUE TOTAL FILTERABLE-:
BORON ----------:	HARDNESS ----------:	SETTLEABLE MATTER ------:
BROMIDE ----------:	NITRATE N ----------:	STD PLATE COUNT --------:
CARBON DIOXIDE ---------:	NITRITE N ----------:	SULFATE ----------:
CARBONATE ----------:	NITROGEN ORGANIC -------:	SULFIDE ----------:
CHLORIDE ----------:	NITROGEN TOTAL KJELDAHL -:	SURFACTANT ----------:
CHLORINE RESIDUAL ------:	OXYGEN DISSOLVED -------:	TANNIN & LIGNIN --------:
COLOR ----------:	PCB ----------:	TEMPERATURE ----------:
CONDUCTIVITY ----------:	PESTICIDES ----------:	TOTAL ORGANIC CARBON ---:
CORROSIVITY ----------:	PHENOLS ----------:	TRIHALOMETHANE ---------:
CYANIDE FREE ----------:	pH (S.U.) ----------:	TURBIDITY (N.T.U.) ------:
CYANIDE TOTAL ----------:	PHOSPHATE ORTHO --------:	

ALUMINUM ----------:	COPPER ----------:	SELENIUM ----------:
ANTIMONY ----------:	GOLD ----------:	SILICA ----------:
ARSENIC ----------:	IRON ----------:	SILICON ----------:
BARIUM ----------:	LEAD ----------:	SILVER ----------:
BERYLLIUM ----------:	MAGNESIUM ----------:	SODIUM ----------:
CADMIUM ----------:	MANGANESE ----------:	THALLIUM ----------:
CALCIUM ----------:	MERCURY ----------:	TIN ----------:
CHROMIUM ----------:	MOLYBDENUM ----------:	TITANIUM ----------:
HEXAVALENT CHROMIUM ----:	NICKEL ----------:	VANADIUM ----------:
COBALT ----------:	POTASSIUM ----------:	ZINC ----------:

COMMENTS: TETRACHLOROETHYLENE = (0.005

Michael D. Moore

MICHAEL D. MOORE

APPENDIX G

SAMPLE CHAIN OF CUSTODY RECORDS

CHAIN OF CUSTODY

Project Code	Project Name
WP-SRM	12-0094-C01

Samplers (Signature)
Bradley Harr and Mark Kraley

Date of collection 11-2-87

SRM-WP #1	water	
SRM-WP #2	water	
SRM-WP #3	water	

Remarks

Analyze for Volatile Petroleum products

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Mark Kraley	11/2/87	4:00 PM	Ron Bradley				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

To State Lab

for Analytical Lab

DRE Associates

CHAIN OF CUSTODY

Project Code	Project Name
WP-SRM	12-0094-C01

Samplers (Signature)

Brad Harr and Mark Kraley

	Type	Media	date	Remarks
SRM-WP-W-1002	well	water	11-12-87	check for tetrachloroethene
SRM-WP-DB-002	grab	debris	11-12-87	" " "

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Mark Kraley	11/12	2:50					
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

CHAIN OF CUSTODY

Project Code	Project Name
WP-SRM	12-0094-C01

Samplers (Signature)

Brad Harr and Mark Kraley

	Type	Media	date	Remarks
SRM-WP-W-1001	well	water	11-12-87	check for tetrachloroethene
SRM-WP-DB-001	Grab	debris	11-12-87	" " "
SRM-WP-W-1003	GRAB	WATER	11-12-87	" " "

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Mark Kraley	11/12/87	3:00 PM					
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

To State Lab

Front Seal 1694
Back Seal
Sealed by GA Date 11-16-87

Shuttle Opened in field by Brad Harr
Front Seal 1694
Back Seal
Date

Shuttle Reseated by Brad H
Front Seal
Back Seal
Date 11-23-87

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

PROJECT NO.:

LOCATION: BH WP-Boise ID
DATE: 11-23-87

SAMPLE DUE BH
DATE: 11-30-87

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D.	ANALYSIS REQUIRED: VOA's	RP metals								SPLIT (Y) (N)
2:45 pm	BH	1		X	X		SRM-wp-NT-1	X	NA								
3:00 pm	BH	1		Y	Y		SRM-wp-NT-2a	X	X								
3:39 pm	MK	1		Y	Y		SRM-wp-S#13	X									
4:27 pm	MK	1		Y	Y		SRM-wp-S#16a	X									
3:14 pm	MK	1		Y	Y		SRM-wp-S#11	X									
1:40 pm	MK	1		Y	Y		SRM-wp-S#5	X									

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
Bradley D. Harr	11/23/87	5:30 pm	Federal Express	11/23/87	5:30 pm	
			Kathleen Eaves	11/24/87	10:02 am	

To PSI Lab

Shuttle Lab Seal Nos.
Front Seal _____
Back Seal _____
Sealed by _____ Date _____

Shuttle Opened in field by _____
Front Seal _____
Back Seal _____
Date _____

Shuttle Resealed by _____
Front Seal _____
Back Seal _____
Date 11-23-87

CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.:

LOCATION: BH WP-Boise ID
DATE: 11-23-87

SAMPLE DUE BH
DATE: 11-30-87

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D.	ANALYSIS REQUIRED: VOA's									SPLIT (Y) (N)
~~3:25~~ 1032 pm	PN	2				X	SBM-WP-Well #6	X									
3:15 pm	PN	2				X	SBM-WP-Well #8	X									
3:55 pm	PN	2				X	SBM-WP-Well #10	X									

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
Bradley Harr	11/23/87	5:30 pm	Federal Express	11/23/87	5:30 pm	
			Kathleen Eaves	11/24/87	10:02 am	

To PSI Lab

(1)

CHAIN OF CUSTODY

Project Code	Project Name	Remarks
SRM	West Park - Boise, Idaho	

Samplers (Signature)

Mark Kruley Brad Haar Pete Norbeck

[signatures]

Sample		Remarks
SRM-WP-Well 4 (2-VOA Vials)	Water	All samples to be analyzed for tetrachloroethylene as per VOA analysis
SRM-WP-Well 5 (2-VOA Vials)	Water	
SRM-WP-Well 7 (2-VOA Vials)	Water	
WP-SG-LD1	Soil	
WP-SG-LD1-1.5F	Soil	
WP-SG-LD2	Soil	
WP-SG-BD-1	Soil	
WP-SG-BD-2	Soil	
SRM-WP-BG-001	Bentonite Powder	

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
[signature] Survey + Sampling Manager	11-23-87	2:00 PM	[signature]				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

To A.L.

2

CHAIN OF CUSTODY

Project Code	Project Name		
SRM	WP		Remarks
Samplers (Signature)			
Brad Harr Pete Norbeck			
SRM-WP-Well #1C before purge		tetrachloroethene	
SRM-WP-Well #1		"	
SRM-WP-Decon		"	

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Mark Kuley	11/23/87	5:10pm	[signature]				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

To A.Lab

CHAIN OF CUSTODY

Project Code	Project Name
SRM	WP

Samplers (Signature)

Brad Harr Mark Kirkley / Mark Kirkley

			Tetrachloroethene	Remarks
SRM - WP - S #6	—	SOIL	"	
SRM - WP - S #7	—	SOIL	"	
SRM - WP - S #8	—	SOIL	"	
SRM - WP - S #9	—	SOIL	"	
SRM - WP - S #10	—	SOIL	"	
SRM - WP - S #12	—	SOIL	"	
SRM - WP - S #14	—	SOIL	"	
SRM - WP - S #15	—	SOIL	"	
SRM - WP - S #16	—	SOIL	"	
SRM - WP - NT - 2	—	SOIL	"	
SRM - WP - NT - 4	—	SOIL	"	
SRM - WP - S #17	—	SOIL	"	

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Mark Kirkley	11/13/87	5:10pm	Robert G. Bost				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

To A. Lab

CHAIN OF CUSTODY

Project Code	Project Name
SRM	WP

Samplers (Signature)
Bradley Harr Bradley Harr

		Remarks
SRM-WP-S-18-1.5F	soil	All samples analyzed for tetrachloroethene
SRM-WP-S-19-1.5F	soil	
SRM-WP-S-20-1.5F	soil	
SRM-WP-S-21	soil	

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	
Bradley W Harr	11/24/87	11:55 am	David M Bennett				

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

To A. Lab

CHAIN OF CUSTODY

Project Code	Project Name
SRM	12-0094-C01

Samplers (Signature)
Bradley Harr Bradley Harr

Sample Number	Number of Containers	Media	Type	Time	Remarks
SRM-WP-Drum #1	2	water	grab	5:00 pm	Tetrachloroethene
SRM-WP-Drum #2	2	water	grab	5:00 pm	
SRM-WP-Drum #3	2	Water	grab	4:35 pm	
SRM-WP-Well #P pit	2	Water	grab	4:45 pm	

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Mark Kelly	12/7/87	8:45am	Catherine Alexander				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	

SRM * P. O. Box 3578 * Billings, Montana * 406-245-9878

To A. Lab

CHAIN OF CUSTODY

Project Code	Project Name
SRM	12-0094-C01

Samplers (Signature)
Bradley Harr

Sample	Remarks
SRM-WELL-7-PIT 12/1/87 pit mud	TEST FOR TETRACHLOROETHYLENE
SRM-WELL-9-PIT (DUP) 12/1/87 pit mud	TEST FOR TETRACHLOROETHYLENE

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley Harr	12/4/87	2:00 pm	Mark Kinley	Mark Kinley	12/4/87	2:20 PM	[illegible]
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

To A. Lab

CHAIN OF CUSTODY

Project Code	Project Name	Remarks
	WEST PARK - BOISE, IDAHO	

Samplers (Signature)

MARK KNOLEY BRAD HAWK PETE NORBECK

Mark Kuley Brad Hawk Pete Norbeck

Sample No		
SRM-WP-WELL 4 (2-VOA VIALS)	8543	ALL SAMPLES TO BE ANALYZED FOR TETRACHLOROETHYLENE AS PER VOA ANALYSIS
SRM-WP-WELL 5 (2-VOA VIALS)	WATER	
SRM-WP-WELL 7 (2-VOA VIALS)	8542	
WP-SG-LD1	8541	
WP-SG-LD1-1.5F	8547	
WP-SG-LD2	SOIL	8545
WP-SG-BD1	8549	
WP-SG-BD-2	8550	
SRM-WP-BG-001 - BENTONITE POWDER		

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
SRM HS MANAGER	12-23-87	2:00 PM	Catherine Alexander				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Catherine Alexander Michael D. Moore	12/4/87	3:25 PM	Mark Kuley				
Relinquished by (Sign.)	Date	Time	Received ~~for lab~~ by (Sign)	Date	Time	Remarks	
Mark Kuley	12/4/87	5:00 PM	Bradley Hawk				

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CHAIN OF CUSTODY

Project Code	Project Name		
	WP		
Samplers (Signature)			Remarks
Mark Kinsey	VOA SAMPLE		
SRM-WP-WELL 10 12/7/87		TC TRACKORE TRIPLICATE	

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Mark Kinsey	12/7/87	12:54pm					
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	

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To A. Lab

CHAIN OF CUSTODY

Project Code	Project Name
SRM	LWP-12-0094-C01

Samplers (Signature): Bradley Hair / Mark Harley / Bradley Hair

			VOA's	Remarks
SRM-LWP-Well #9	12-7-87	5:12pm	X	Analyze for VOA's
SRM-LWP-56-BD-1	11-23-87	1:01pm	X	"

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley Hair	12/7/87	5:31 pm	Federal Express				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	

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Labels OK
CofC Seals OK
To PSI Lab

CHAIN OF CUSTODY

Project Code	Project Name
SRM	WP-12-0094-C01

Samplers (Signature)
Bradley Hart

			Remarks
SRM-WP- Well # TB	30 in Bay	water, 5:00pm 12-7-87	Analyze for tetrachloroethene
SRM-WP- Well # 9		water, 5:10pm 12-7-87	" "
SRM-WP- Well # 11		water, 4:35pm 12-7-87	" "

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley Hart	12/8/87	9:23am	Mark Kuley				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	
Mark Kuley	12/8/87	9:55am	Cathy Alexander				

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To A. Lab

CHAIN OF CUSTODY

Project Code	Project Name			
SRM-WP	12-0394-C01			
Samplers (Signature)				Remarks
Bradley Hart Bradley Hart				
SRM-WP-S#22	12/15/87	4:40pm	soil grab	TETRACHLOROETHENE
SRM-WP-DECON#2	12/16/87	9:10am	auger rinse	TETRACHLOROETHENE

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley Hart	12/16/87	11:00 am	Mark Kraley				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	
Mark Kraley	12/16/87	11:93 AM	Carol Emmett				

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Please put all collection information on lab print out.

CHAIN OF CUSTODY

Project Code	Project Name	Remarks
SRM-WP	12-0094-C01	
Samplers (Signature) MARK KRALEY Mark Kraley		
SRM-WP-WELL #12 12/16/87 1:05 pm WATER		TETRACHLOROETHENE

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	
Mark Kraley	12/16/87	2:00 pm					

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CHAIN OF CUSTODY

Project Code	Project Name		
SRM-WP	12-0094-C01		
Samplers (Signature) Brad Harr Mark Kraley Bradley Hall			Remarks
SRM-WP-WELL #13 Brad Harr 11:10 pm 12/11/97 WATER			TETRACHLOROETHENE

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley Hall	12/12/97	11:39 pm					
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

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CHAIN OF CUSTODY

Project Code	Project Name
SRM-WP	WP-12-0094-C01

Samplers (Signature)

M. KRALEY B. HARR Mark Kraley Bradley Harr

SRM-WP-WELL # 1d	12/18/87	WATER	3:15 pm	TETRACHLOROETHENE
SRM-WP-WELL # 5d	12/18/87	WATER	12:35 pm	"
SRM-WP-WELL # 7d	12/18/87	WATER	3:00 pm	"
SRM-WP-WELL # 9d	12/18/87	WATER	11:32 am	"
SRM-WP-WELL # 12d	12/18/87	WATER	3:21 pm	"
SRM-WP-WELL # 13d	12/16/87	WATER	1:30 pm	"

Remarks

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley W. Harr	12/18/87	4:04 pm	Kathy Hermsen				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

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A.A. LABS

CHAIN OF CUSTODY

Project Code	Project Name	Remarks
SRM-WP	WP-12-0094-C01	

Samplers (Signature): Mark Kealey M. KEALEY Mark Kealey Bradley Harr

SRM-WP-WELL #1E	12/18/87	WATER	3:15 pm	~~[illegible]~~ all VOA's
SRM-WP-WELL #5E	12/18/87	WATER	12:35 pm	" "
SRM-WP-WELL #7E	12/18/87	WATER	3:00 pm	" "
SRM-WP-WELL #9E	12/18/87	WATER	11:32 a.m.	" "
SRM-WP-WELL #12E	12/18/87	WATER	3:27 pm	" "
SRM-WP-WELL #13E	12/18/87	WATER	1:30 p.m.	" "

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley Harr	12/18/87	5:20 pm	Federal Express				

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

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P.S.I.

CHAIN OF CUSTODY

Project Code	Project Name
SRM	12-0094-C01

Samplers (Signature)

Bradley Harr Bradley D Harr

Remarks

SRM-WP-SCPSEW water 12-22-87 4:40 tetrachloroethene

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley D Harr	12/22/87	4:59					
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks

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CHAIN OF CUSTODY

Project Code	Project Name			Remarks
SRM				
Samplers (Signature) Bradley W Harr				
SRM-WP-Well 8d	12/31/87	3:55 pm		tetrachloroethene
SRM-WP-Well #6d	12/31/87	3:55 pm		tetrachloroethene

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks
Mark Kc[illegible]	12/31/87	4:05 PM	[signature] Bennett			

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CHAIN OF CUSTODY

Project Code	Project Name				
SRM	12-0014-C01				
Samplers (Signature)					Remarks
Mark Kelley Mark Kelley					
SRM-WT-WELL # 15	1/13/88	12:15 p.m.			TOTAL RECORDABLE
SRM-WT-WELL # 16	1/13/88	11:30 a.m.			" "

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	
Mark Kelley	1/13/88	12:48 pm					

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CHAIN OF CUSTODY

Project Code	Project Name	Remarks
SRM	12-0094-C01	

Samplers (Signature)

M Kraley MARK KRALEY

Sample					Remarks
SRM-[illegible] WELL # 17	Water	1/13/88	2:[illegible] pm		[illegible] TETRACHLOROETHENE (VOA's)
SRM-[illegible] WELL # 14	Water	1/13/88	[illegible] pm		" " " "
SRM-WP-24	Soil Composite	1/13/88	? [illegible] pm		" " "

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)

Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks
Mark Kraley	1/13/88	3:52 pm	[illegible signature]			

CHAIN OF CUSTODY

Project Code	Project Name
SRM	12-0094-C01

Samplers (Signature): Brad Harr Bradley Harr

					Remarks
SRM-WP-Well 14a	water	1-13-88	2:20 pm	Analyze as VOA's	
SRM-WP-Well 15a	water	1-13-88	12:15 pm	"	
SRM-WP-Well 16a	water	1-13-88	11:20 am	"	
SRM-WP-Well 17a	water	1-13-88	2:55 pm	"	
SRM-WP-5-25	soil	1-13-88	3:30 pm	"	Please mix soil a little before taking sample
SRM-WP-5-24a	soil	1-13-88	3:20 pm	"	" " "

Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Bradley D Harr	1/13/88	5:50 pm	K Failing 1-14-88 1100				
Relinquished by (Sign.)	Date	Time	Received by (Sign)	Relinquished by (Sign)	Date	Time	Received By (Sign)
Relinquished by (Sign.)	Date	Time	Received for Lab by (Sign)	Date	Time	Remarks	

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SERCO samples 5 day turn around

APPENDIX H

SAMPLE COLLECTION SUMMARY

APPENDIX H - SAMPLE COLLECTION SUMMARY

Sample #	Collection Date	Matrix	Laboratory Utilized	Comment	Chemicals Analyzed
SRM-WP #1	11/02/87	Water	I.S.L.	Well Sample	Volatile Petroleum Products
SRM-WP #2	11/02/87	Water	I.S.L.	Well Sample	Volatile Petroleum Products
SRM-WP #3	11/02/87	Water	I.S.L.	Well Sample	Volatile Petroleum Products
SRM-WP-W-1001	11/12/87	Water	I.S.L.	Well Sample, Well 1 verification	PCE and 1,1,1 trichloroethan
SRM-WP-W-1002	11/12/87	Water	A.A.	Well Sample, Well 1 verification	PCE
SRM-WP-DB-001	11/12/87	Debris	I.S.L.	Grab Sample, rubber sack material	PCE and 1,1,1 trichloroethan
SRM-WP-DB-002	11/12/87	Debris	A.A.	Grab Sample, rubber sack material	PCE
SRM-WP-W-1003	11/12/87	Water	I.S.L.	Grab Sample, puddled water, East of NET	PCE and 1,1,1 trichloroethan
SRM-WP-NT-1	11/23/87	Soil	P.S.I.	Composite Sample, side of ditch	VOC's
SRM-WP-NT-2A	11/23/87	Soil	P.S.I. (A.A.-2)	Composite Sample, split sample	VOC's, P.P. metals
SRM-WP-S#13	11/23/87	Soil	P.S.I.	Composite Sample	VOC's
SRM-WP-S#16a	11/23/87	Soil	P.S.I. (A.A.-16)	Composite Sample, split sample	VOC's
SRM-WP-S#11	11/23/87	Soil	P.S.I.	Composite Sample	VOC's
SRM-WP-S#5	11/23/87	Soil	P.S.I.	Composite Sample	VOC's

Sample Collection Summary, Con't.

Sample #	Collection Date	Matrix	Laboratory Utilized	Comment	Chemicals Analyzed
SRM-WP-Well #6	11/23/87	Water	P.S.I.	Well Sample	VOC's
SRM-WP-Well #8	11/23/87	Water	P.S.I.	Well Sample	VOC's
SRM-WP-Well #1a	11/23/87	Water	P.S.I. (A.A.-1)	Well Sample, duplicate of SRM-WP-Well #1	VOC's
SRM-WP-Well #4	11/23/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well #5	11/23/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well #7	11/23/87	Water	A.A.	Well Sample	PCE
SRM-WP-SG-LD1	11/23/87	Soil	A.A.	Composite Sample, bottom of ditch	PCE
SRM-WP-SG-LD1-1.5F	11/23/87	Soil	A.A.	Composite Sample, taken 1.5' deep, bottom of ditch	PCE
SRM-WP-SG-LD2	11/23/87	Soil	A.A.	Composite Sample, bottom of ditch	PCE
SRM-WP-SG-BD-1	11/23/87	Soil	A.A.	Composite Sample, bottom of ditch	PCE
SRM-SG-BD-2	11/23/87	Soil	A.A.	Composite Sample, bottom of ditch	PCE
SRM-WP-BG-001	11/20/87	Bentonite Powder	A.A.	Grab Sample of Granular 200 mesh bentonite powder	PCE
SRM-WP-Well #1C	11/23/87	Water	A.A.	Well Sample taken before purge	PCE
SRM-WP-Well #1	11/23/87	Water	A.A. (PSI-1a)	Well Sample	PCE

Sample Collection Summary, Con't.

Sample #	Collection Date	Matrix	Laboratory Utilized	Comment	Chemicals Analyzed
SRM-WP-DECON	11/23/87	Water	A.A.	Sample of decontamination rinsate	PCE
SRM-WP-S#6	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#7	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#8	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#9	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#10	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#12	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#14	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#15	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#16	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-S#17	11/23/87	Soil	A.A.	Composite Sample	PCE
SRM-WP-NT-2	11/23/87	Soil	A.A.	Composite Sample, bottom of ditch	PCE
SRM-WP-NT-4	11/23/87	Soil	A.A.	Grab Sample, taken 1.5 feet deep	PCE
SRM-WP-S-18-1.5 F	11/23/87	Soil	A.A.	Grab Sample, taken 1.5 feet deep	PCE
SRM-WP-S-19-1.5 F	11/23/87	Soil	A.A.	Grab Sample, taken 1.5 feet deep	PCE

Sample Collection Summary, Con't.

Sample #	Collection Date	Matrix	Laboratory Utilized	Comment	Chemicals Analyzed
SRM-WP-S-20-1.5 F	11/24/87	Soil	A.A.	Grab Sample, taken 1.5 feet deep	PCE
SRM-WP-S-21	11/24/87	Soil	A.A.	Grab Sample	PCE
SRM-WP-Drum #1	12/02/87	Water	A.A.	Grab Sample from drummed water-composite of wells 1,4,5,6,7,8	PCE
SRM-WP-Drum #2	12/02/87	Water	A.A.	Grab Sample from drummed water-composite of wells 1,4,5,6,7,8	PCE
SRM-WP-Drum #3	12/02/87	Water	A.A.	Grab sample from drummed water-well 11	PCE
SRM-WP-Well #10 Pit	12/02/87	Water	A.A.	Grab sample from well mud pit	PCE
SRM-WELL #9 Pit	12/04/87	Water	A.A.	Grab sample from well mud pit	PCE
SRM-WP-Well #10	12/07/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well #9a	12/07/87	Water	P.S.I. (A.A.)	Well Sample Duplicate of SRM-WP-Well #9	VOC's
SRM-WP-SG-BD1	11/23/87	Soil	P.S.I. (A.A.)	Composite sample originally analyzed by A.A. for tetrachloroethene and sent to PSI on 12/07/87 to be analyzed for all VO	VOC's
SRM-WP-Well #9B	12/07/87	Water	A.A.	Well sample taken from bottom of well before purge, silty sample	PCE

Sample Collection Summary, Con't.

Sample #	Collection Date	Matrix	Laboratory Utilized	Comment	Chemicals Analyzed
SRM-WP-Well #9	12/07/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well #11	12/07/87	Water	A.A.	Well Sample	PCE
SRM-WP-S#22	12/15/87	Soil	A.A.	Soil Sample; depth-5 ft. at well #13	PCE
SRM-WP-Decon #2	12/16/87	Water	A.A.	Drill auger rinse between well 12 & 13	PCE
SRM-SP-Well #12	12/16/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well #13	12/17/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well 1d	12/18/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well 5d	12/18/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well 7d	12/18/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well 9d	12/18/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well 12d	12/18/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well 13d	12/18/87	Water	A.A.	Well Sample	PCE
SRM-WP-Well 1e	12/18/87	Water	PSI	Well Sample	VOC's
SRM-WP-Well 5e	12/18/87	Water	PSI	Well Sample	VOC's
SRM-WP-Well 7e	12/18/87	Water	PSI	Well Sample	VOC's

Sample Collection Summary, Con't.

Sample #	Collection Date	Matrix	Laboratory Utilized	Comment	Chemicals Analyzed
SRM-WP-Well 9e	12/18/87	Water	PSI	Well Sample	VOC's
SRM-WP-Well 12e	12/18/87	Water	PSI	Well Sample	VOC's
SRM-WP-Well 13e	12/18/87	Water	PSI	Well Sample	VOC's
SRM-WP-SCP-SEW	12/22/87	Water	A.A.	Sewer manhole on Benjamin, S of Empi. Office 4:40 pm	PCE
SRM-WP-Well 8d	12/31/87	Water	A.A.	Well Water	PCE
SRM-WP-Well 6d	12/31/87	Water	A.A.	Well Water	PCE
SRM-WP-Well 11f	1/08/88	Water	A.A.	Pump Test Water from test on 1/08/88	PCE
SRM-WP-Well 14	1/13/88	Water	A.A.	Well Water	PCE
SRM-WP-Well 15	1/13/88	Water	A.A.	Well Water	PCE
SRM-WP-Well 16	1/13/88	Water	A.A.	Well Water	PCE
SRM-WP-Well 17	1/13/88	Water	A.A.	Well Water	PCE
SRM-WP-Well 14a	1/13/88	Water	SERCO	Well Water	VOC's
SRM-WP-Well 15a	1/13/88	Water	SERCO	Well Water	VOC's
SRM-WP-Well 16a	1/13/88	Water	SERCO	Well Water	VOC's

Sample Collection Summary, Con't.

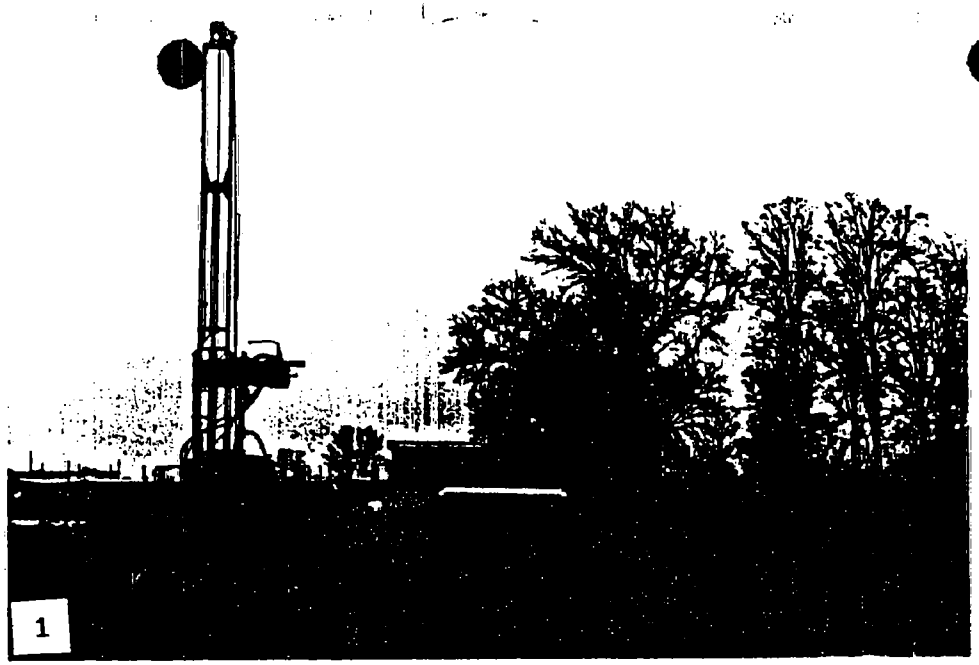
Sample #	Collection Date	Matrix	Laboratory Utilized	Comment	Chemicals Analyzed
SRM-WP-Well 17a	1/13/88	Water	SERCO	Well Water	VOC's
SRM-WP-S-24	1/13/88	Soil	A.A.	Soil from Silo	PCE
SRM-WP-S-24a	1/13/88	Soil	SERCO	Soil from Silo	VOC's
SRM-WP-S-25	1/13/88	Soil	SERCO	Grab from gravel pile by silo	VOC's

I.S.L. = Idaho State Laboratory
A.A. = Analytical Laboratories
P.S.I. = Professional Services Laboratories
SERCO = SERCO Laboratories

VOC = Volatile Organic Compounds, Soils by EPA Method SW8240, water by EPA Method 624
PCE = tetrachloroethene

APPENDIX I

PHOTOGRAPH DOCUMENTATION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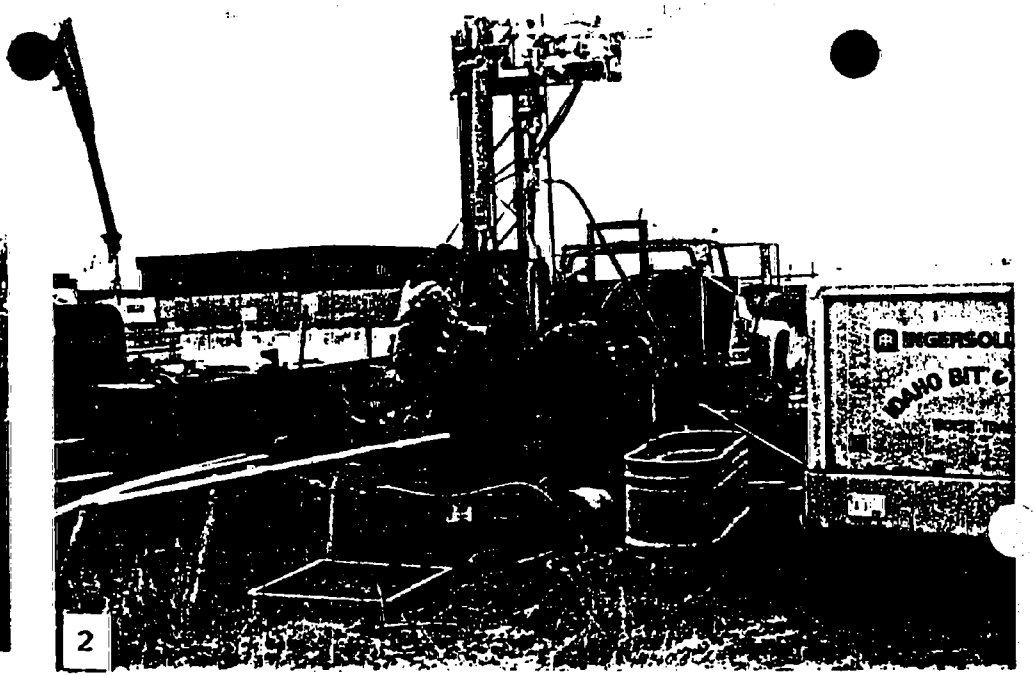

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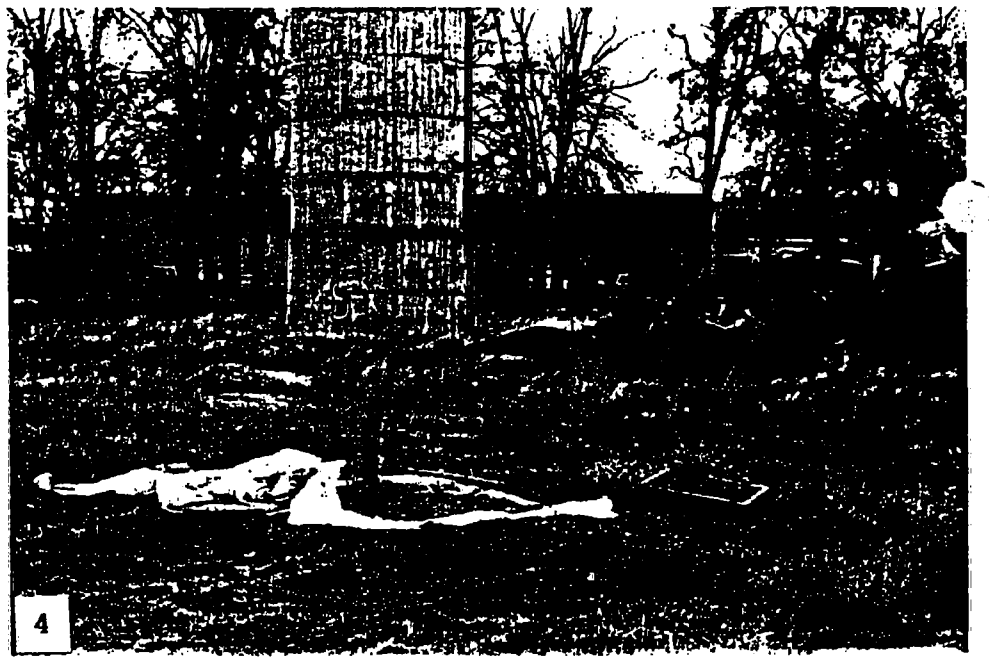
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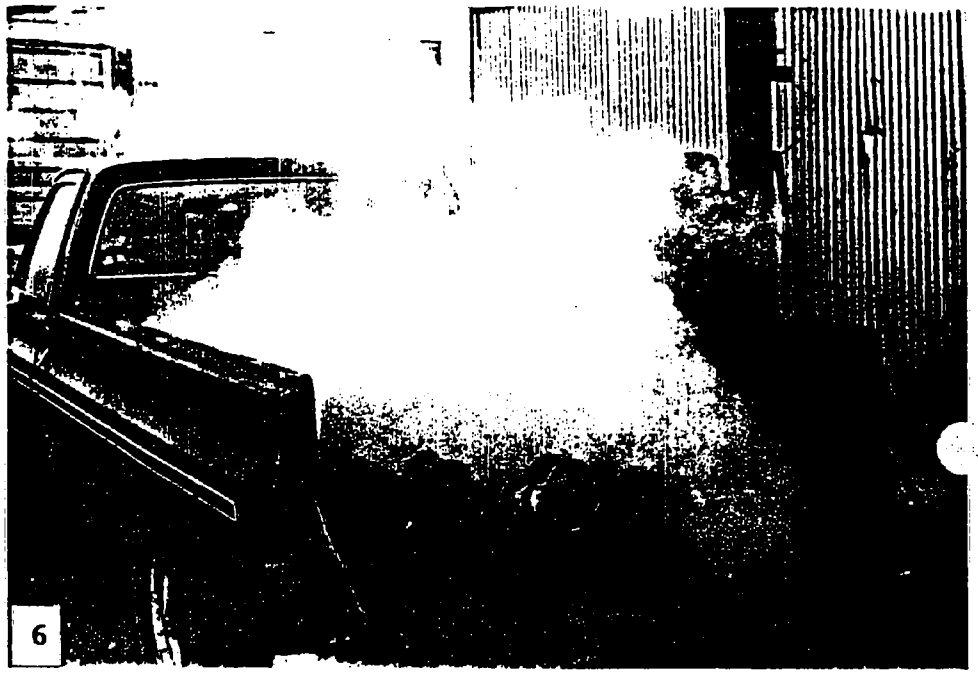

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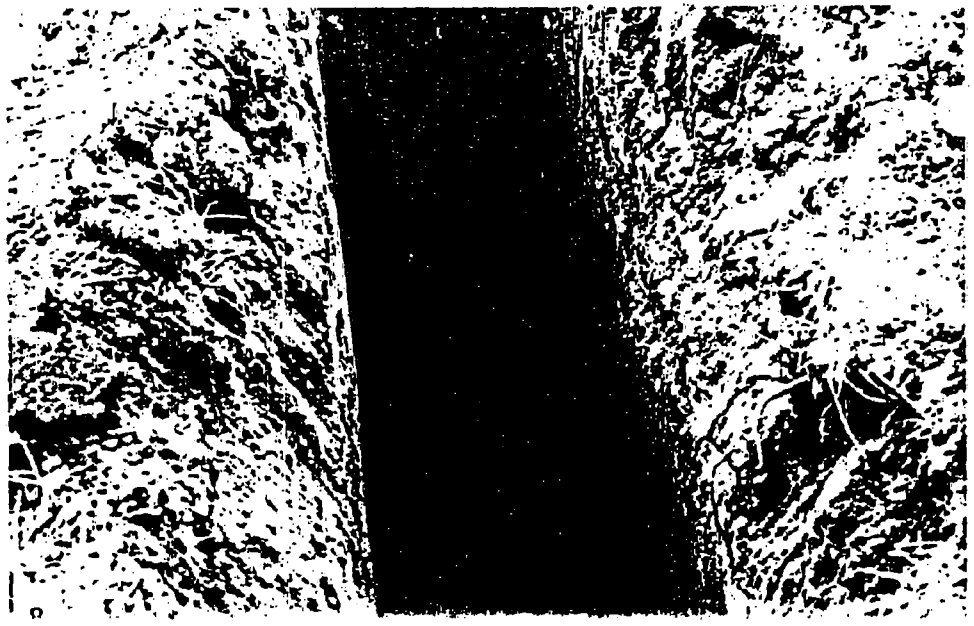

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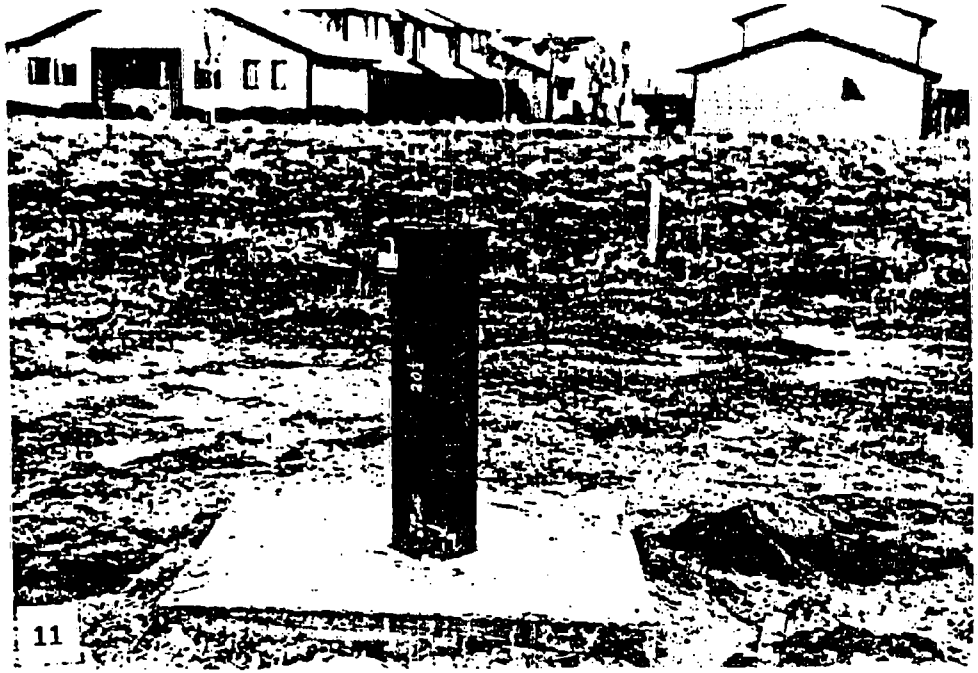

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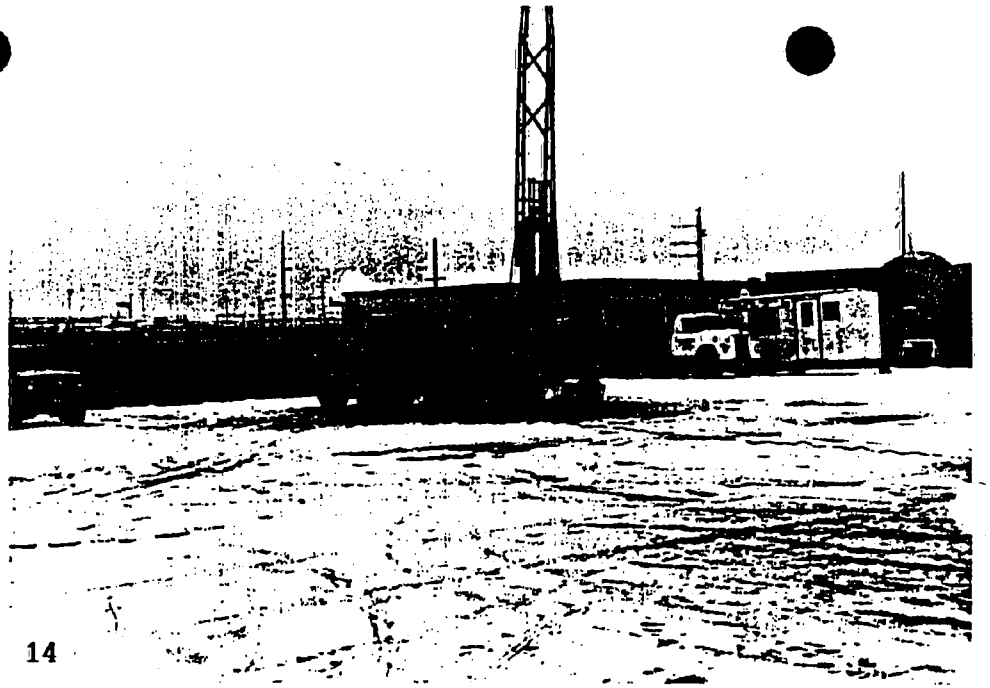

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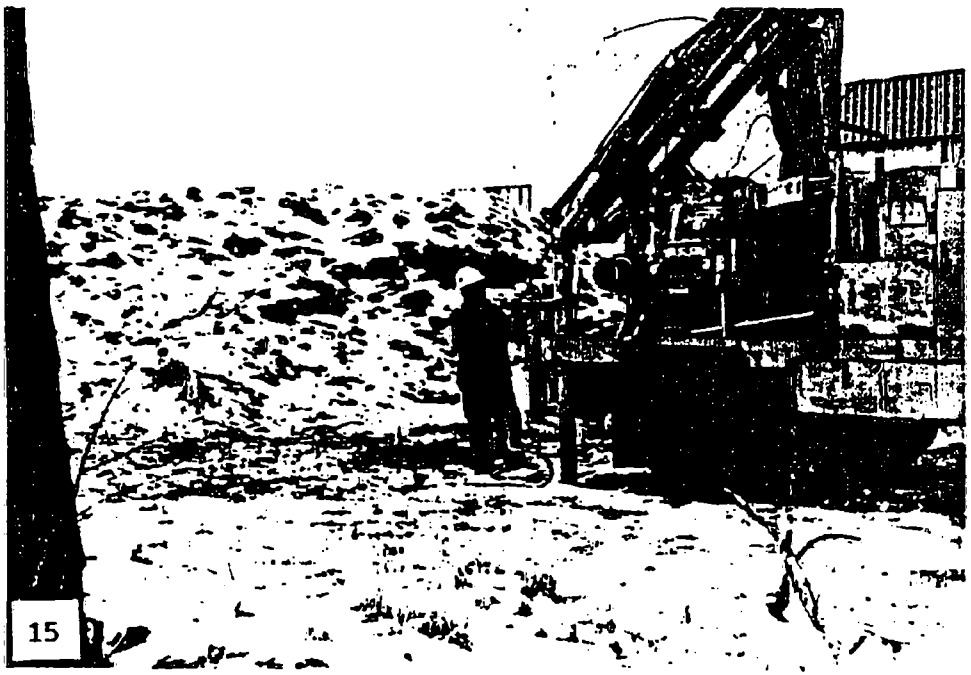

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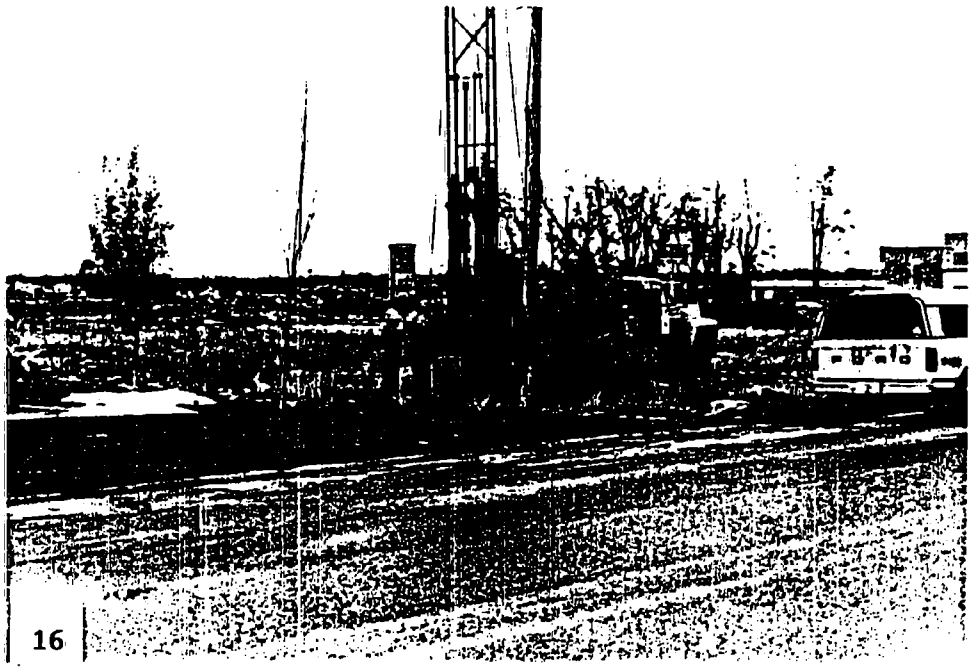

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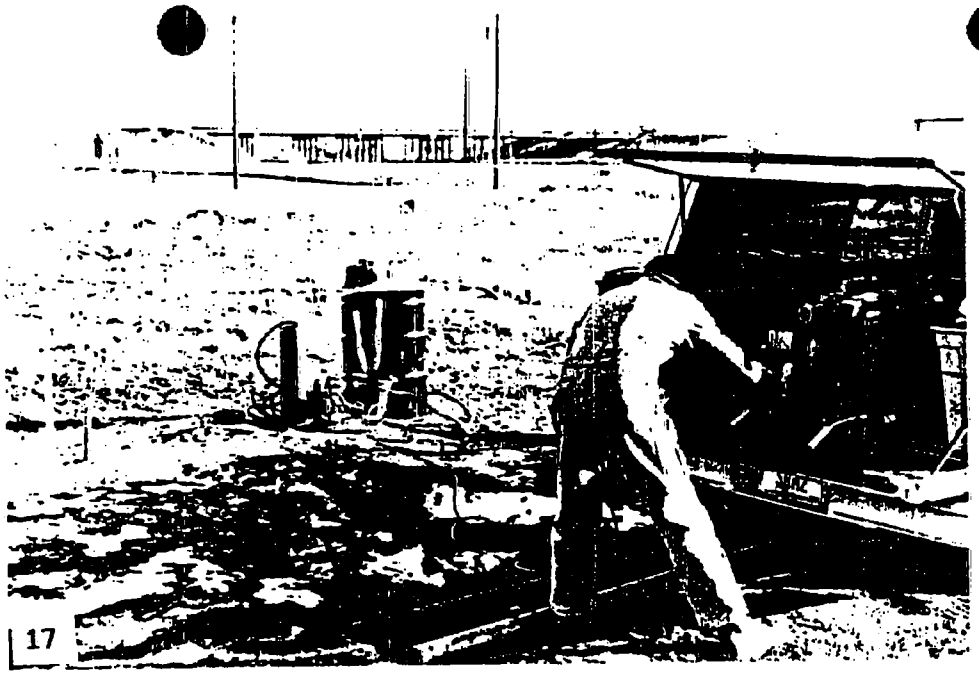

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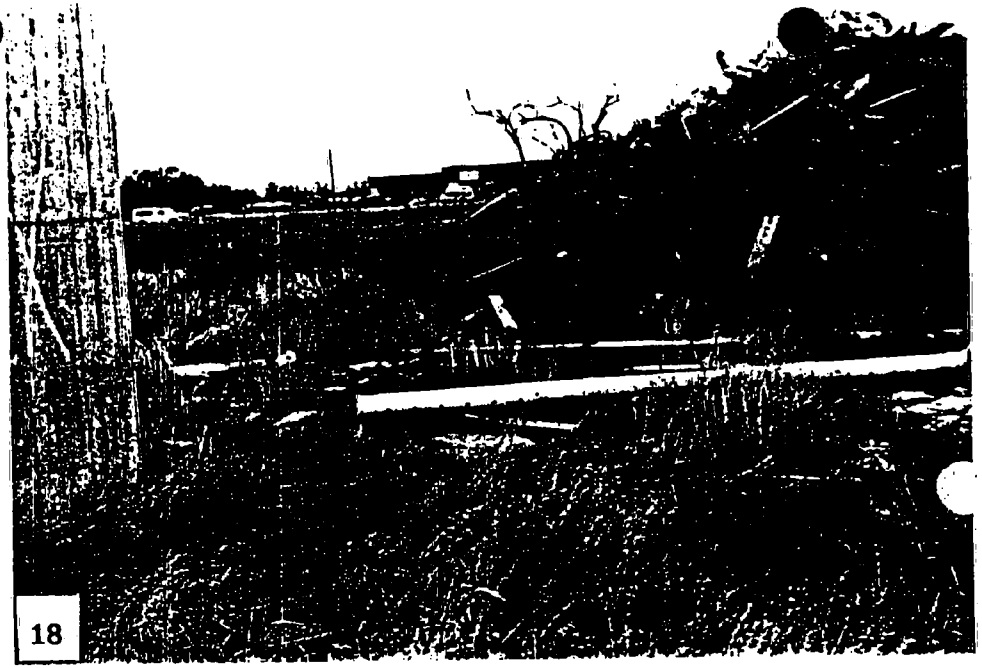

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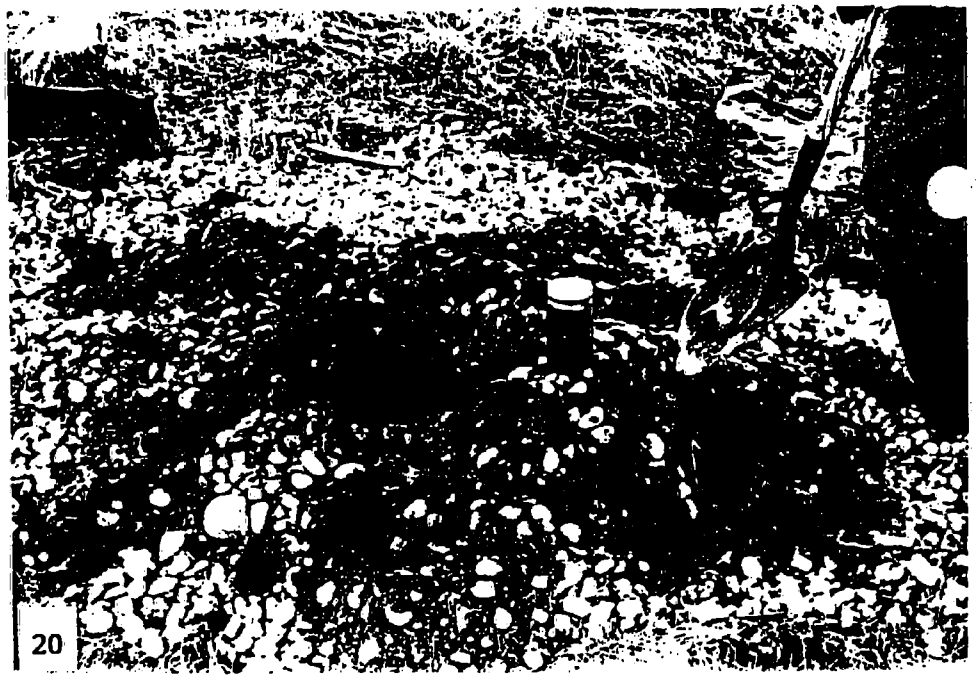

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APPENDIX J

WELL LOGS

GROUNDWATER WELL INSTALLATION RE T

Well No. SRM #4

Project SRM Location

Project No. Installed By Bob Jones Drilling Date 11/20/87 Time 10:00-1:00p

Method of Installation Auger 8-10 ft/ - Complete with hollow stem auger

LOG OF BORING AND WELL

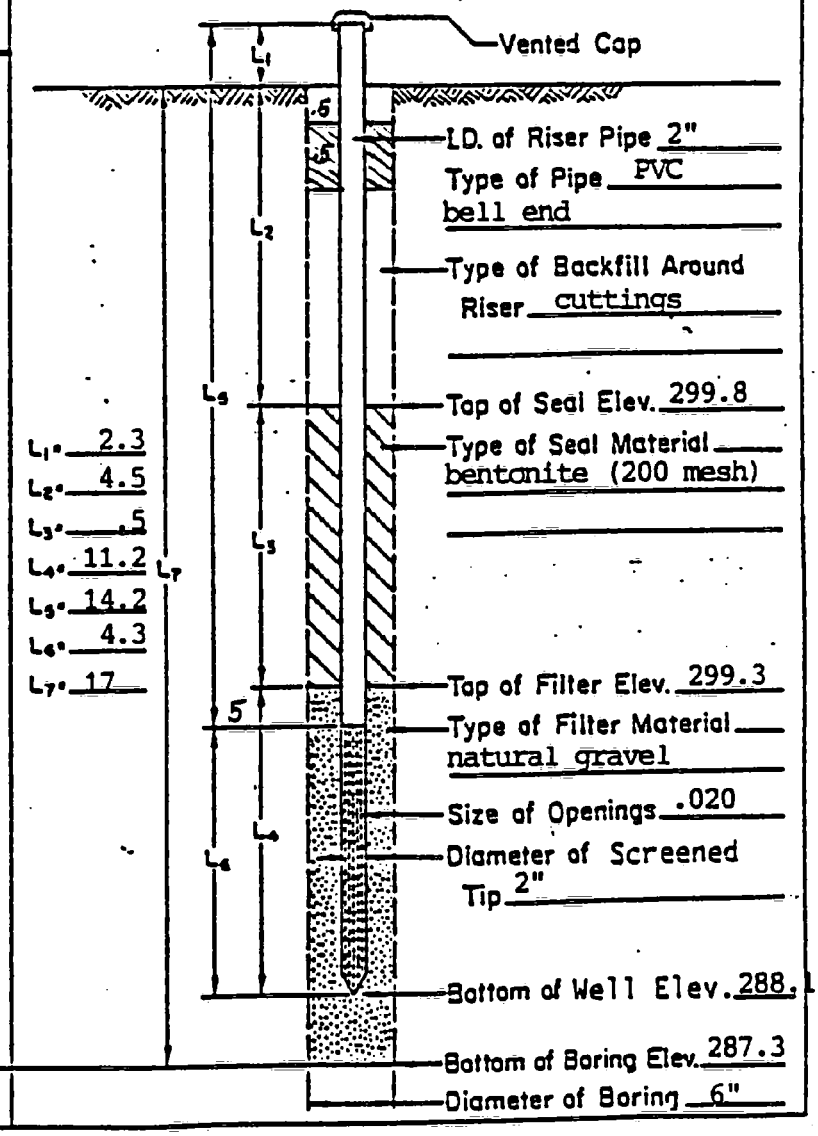
BORING

Depth in ft.	Description	Symbol
	top soil, brown, moist	
	clay, tan-red	
5		
	gravel amd medium sand 3". - tan - caving	
10		
	silt & clay	
	gravel	
15		
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL

Ground Elev. 304.33 Top of Riser Elev. 306.56



I.D. of Riser Pipe 2"

Type of Pipe PVC bell end

Type of Backfill Around Riser cuttings

Top of Seal Elev. 299.8

Type of Seal Material bentonite (200 mesh)

L_1 = 2.3
L_2 = 4.5
L_3 = .5
L_4 = 11.2
L_5 = 14.2
L_6 = 4.3
L_7 = 17

Top of Filter Elev. 299.3

Type of Filter Material natural gravel

Size of Openings .020

Diameter of Screened Tip 2"

Bottom of Well Elev. 288.

Bottom of Boring Elev. 287.3

Diameter of Boring 6"

Remarks

Inspected By

Form 238-7
9/82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Special Resource Management Inc.

Address 200 N 4th St. Suite 206, Boise Idaho

Owner's Permit No. 63-87-Z-086

7. WATER LEVEL

Static water level 9.8 feet below land surface.
Flowing? ☐ Yes ☐ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

2. NATURE OF WORK

☐ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other Monitoring (specify type)

9. LITHOLOGIC LOG #10

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
4"	0	4'	Silty sand		✓
4"	4	9.8	Coarse sand & gravel		✓
4"	9.8	20	Coarse sand & gravel	✓	
3"	20	43	Coarse sand & gravel with occasional cobble	✓	
3"	43	45	Silt & fine sand		✓

4. METHOD DRILLED

☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☐ Other PVC

Thickness		Diameter		From		To	
0.25	Inches	4	Inches +	0	feet	20	feet
	Inches		Inches		feet		feet
Sch. 40	Inches	2	Inches	0	feet	45	feet
	Inches		Inches		feet		feet

Was casing drive shoe used? ☐ Yes ☐ No
Was a packer or seal used? ☐ Yes ☐ No
Perforated? ☐ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

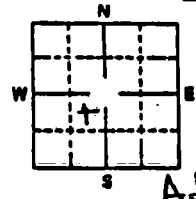
Number		From		To	
	perforations		feet		feet
	perforations		feet		feet
	perforations		feet		feet

Well screen installed? ☐ Yes ☐ No
Manufacturer's name Hydrophilic
Type PVC Model No. —
Diameter 2" Slot size .02 Set from 25 feet to 40 feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel Sand PD
Placed from 18 feet to 45 feet
Surface seal depth 18 Material used in seal: ☐ Cement grout
☐ Bentonite ☐ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port None

10. Work started 12/3/87 finished 12/3/87

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County Ada
NE ¼ SW ¼ Sec. 12, T. 3N N/S, R. 1 E/W

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Robert P Jones Co. Firm No. 453
Address P.O. Box 3368 Boise Idaho Date 12/19/87
Signed by (Firm Official) R.P. Jones
and
(Operator) R.P. Jones

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
9/82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Special Resources Management Inc.
Address 200 N 4th St. Suite 206
Boise, Idaho 83702
Owner's Permit No. 63-87-Z-081

2. NATURE OF WORK

☑ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☑ Other Monitoring (specify type)

4. METHOD DRILLED

☑ Rotary ☑ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☑ Steel ☐ Concrete ☑ Other PVC

Thickness	Diameter	From	To
0.25 inches	4 inches	0 feet	20 feet
____ inches	____ inches	____ feet	____ feet
Sch. 40 inches	2 inches	0 feet	45 feet
____ inches	____ inches	____ feet	____ feet

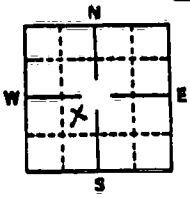
Was casing drive shoe used? ☑ Yes ☐ No
Was a packer or seal used? ☑ Yes ☐ No
Perforated? ☐ Yes ☑ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ____ inches by ____ inches

Number	From	To
____ perforations	____ feet	____ feet
____ perforations	____ feet	____ feet
____ perforations	____ feet	____ feet

Well screen installed? ☑ Yes ☐ No
Manufacturer's name Hydrophilic
Type PVC Model No. ____
Diameter 2" Slot size 0.02 Set from 20 feet to 40 feet
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Gravel packed? ☑ Yes ☐ No ☐ Size of gravel #8 Sand
Placed from 15 feet to 40 feet
Surface seal depth 18' Material used in seal: ☐ Cement grout ☑ Bentonite ☐ Puddling clay ☐ ____
Sealing procedure used: ☑ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☑ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port None

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name ____
Lot No. ____ Block No. ____
County Ada
NE ¼ SW ¼ Sec. 12, T. 3 N/S, R. 1 E/W.

7. WATER LEVEL

Static water level 10.2 feet below land surface.
Flowing? ☐ Yes ☑ No G.P.M. flow ____
Artesian closed-in pressure ____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ____ °F. Quality ____
Describe artesian or temperature zones below

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Air ☐ Other ____

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG #9

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
4"	0	5	Silty sand, brown		✓
4"	5	10.2	Coarse sand; gravel		✓
4"	10.2	20	Coarse sand; gravel	✓	
3"	20	39	Coarse sand; gravel	✓	
3"	39	45	Silty sand		✓

10. Work started 12/5/87 finished 12/5/87

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Robert P Jones Co Firm No. 453
Address PO Box 3366 Date 12/14/87
Signed by (Firm Official) R.P. Jones
and (Operator) Robert P Jones

USE ADDITIONAL SHEETS IF NECESSARY · FORWARD THE WHITE COPY TO THE DEPARTMENT

GROUNDWATER WELL INSTALLATION REPORT

Well No. SRM #5

Project SRM Location

Project No. Installed By Bob Jones Drilling Date 11/20 Time 10:20-1:30p

Method of Installation Auger 8-10 ft/ - Complete with hollow stem auger

LOG OF BORING AND WELL

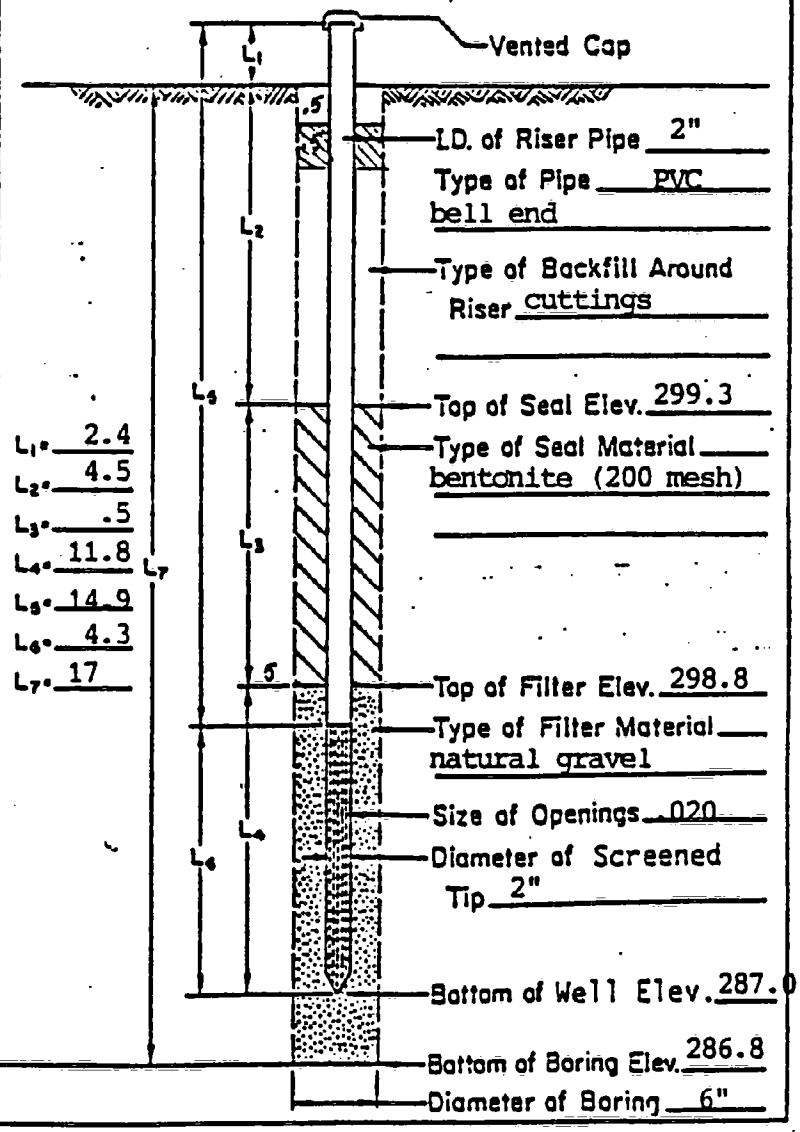
BORING

Depth in ft.	Description	Symbol
	top soil, tan	
	clay, tan, dry	
5	gravel with silt & clay, tan - red 4"	
10	silt & clay	
15		
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL

Ground Elev. 303.81 Top of Riser Elev. 306.22



L_1 = 2.4
L_2 = 4.5
L_3 = .5
L_4 = 11.8
L_5 = 14.9
L_6 = 4.3
L_7 = 17

- Vented Cap
- I.D. of Riser Pipe 2"
- Type of Pipe PVC bell end
- Type of Backfill Around Riser cuttings
- Top of Seal Elev. 299.3
- Type of Seal Material bentonite (200 mesh)
- Top of Filter Elev. 298.8
- Type of Filter Material natural gravel
- Size of Openings .020
- Diameter of Screened Tip 2"
- Bottom of Well Elev. 287.0
- Bottom of Boring Elev. 286.8
- Diameter of Boring 6"

Remarks

Inspected By

GROUNDWATER WELL INSTALLATION REPORT

Well No. SRM #6

Project SRM Location

Project No. Installed By Bob Jones Drilling Date 11/20/87 Time 10:45

Method of Installation Auger to 8-10 ft. - Complete with hollow stem auger

LOG OF BORING AND WELL

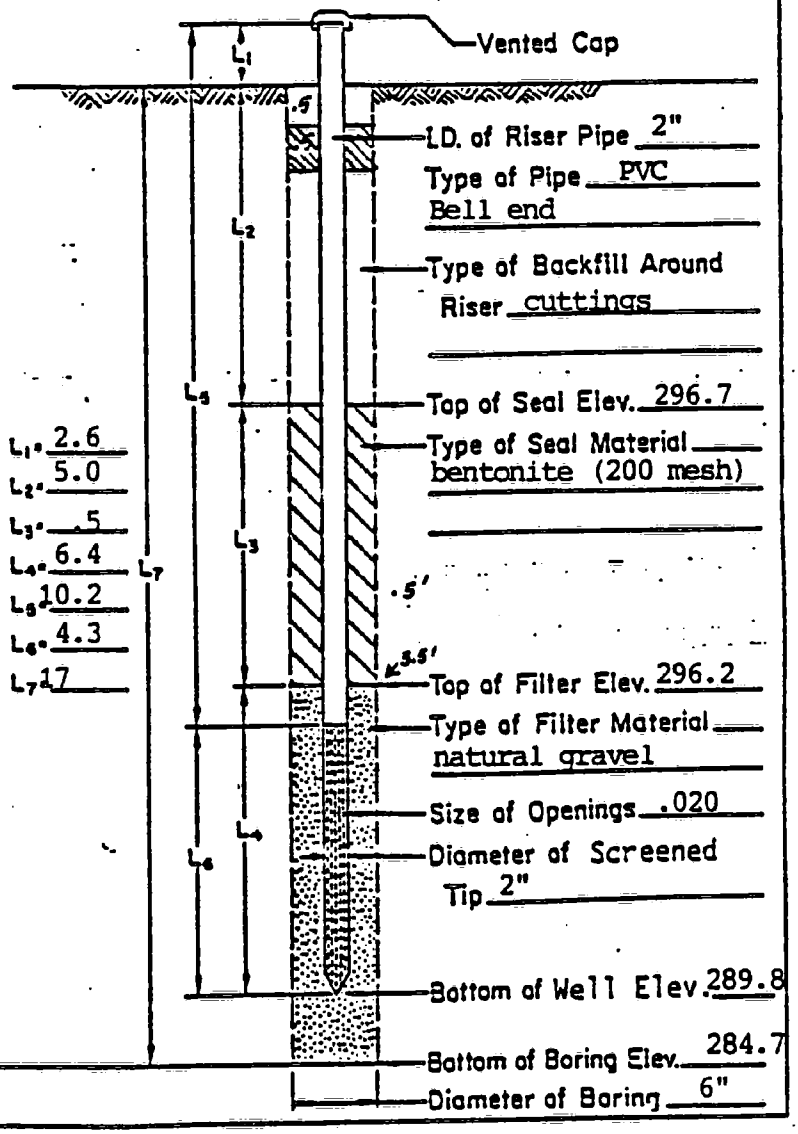
BORING

Depth in ft.	Description	Symbol
	top soil, tan	
	silty clay, tan	
	gravel with silt & clay	
5	tan-red 4"-	
10	sand	
15		
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL

Ground Elev. 301.74 Top of Riser Elev. 304.27



I.D. of Riser Pipe 2"

Type of Pipe PVC Bell end

Type of Backfill Around Riser cuttings

Top of Seal Elev. 296.7

Type of Seal Material bentonite (200 mesh)

L_1 = 2.6
L_2 = 5.0
L_3 = .5
L_4 = 6.4
L_5 = 10.2
L_6 = 4.3
L_7 = 17

Top of Filter Elev. 296.2

Type of Filter Material natural gravel

Size of Openings .020

Diameter of Screened Tip 2"

Bottom of Well Elev. 289.8

Bottom of Boring Elev. 284.7

Diameter of Boring 6"

Remarks $H_2O \approx 9.5$ Heaving sand in bottom of auger.

Casing came back up hole with auger, lost about 3 ft.

Inspected By

GROUNDWATER WELL INSTALLATION REPORT

Well No. SRM #7

Project SRM Location

Project No. Installed By Bob Jones Drilling Date 11/20/87 Time 11:20 - 4:30

Method of Installation Auger 8-10 ft. - Complete with hollow stem auger

LOG OF BORING AND WELL

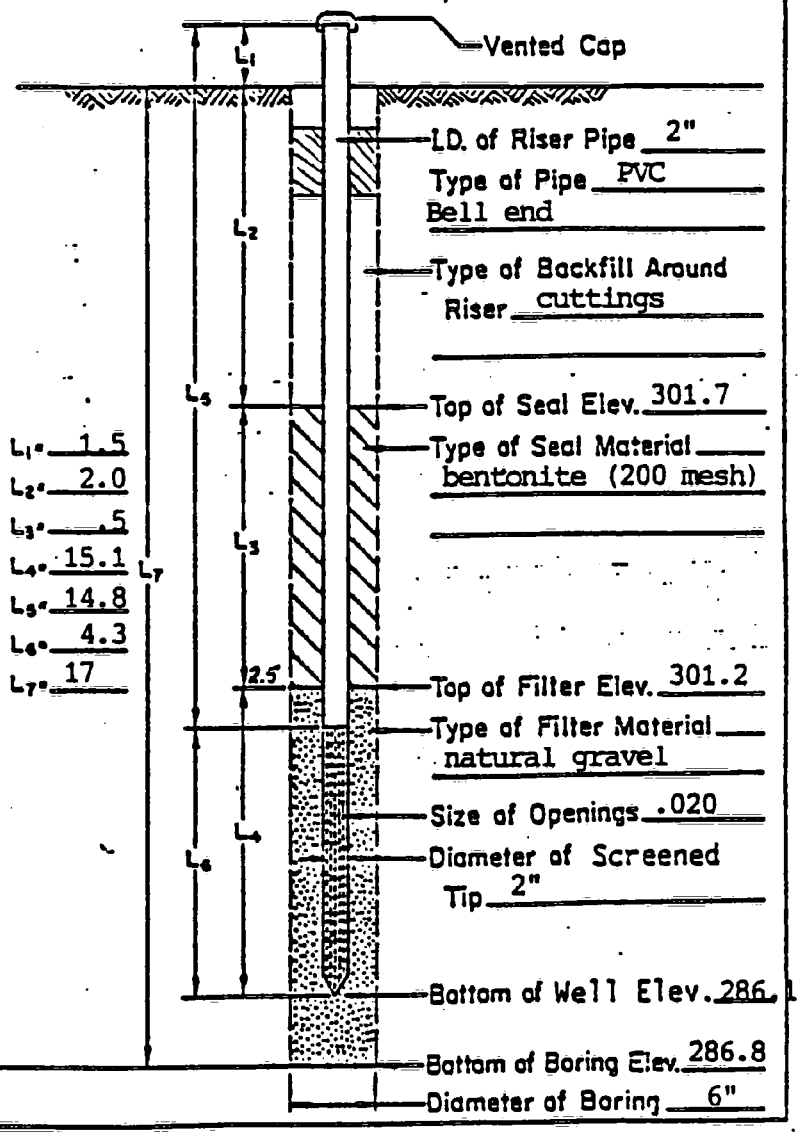
BORING

Depth in ft.	Description	Symbol
	top soil, tan	
	clay, white-tan	
5	gravel and silty clay, tan-red 4"-	
	aa 6"-	
10		
15		
17		
20		

OBSERVATION WELL INFORMATION

Type of WELL

Ground Elev. 303.79 Top of Riser Elev. 305.24



Remarks

Inspected By

GROUNDWATER WELL INSTALLATION REP

Well No. SRM #8

Project SRM Location

Project No. Installed By Bob Jones Drilling Date 11/20/87 Time 11:45-5:45

Method of Installation Auger to 8 - 10 ft. - complete with hollow stem auger

LOG OF BORING AND WELL

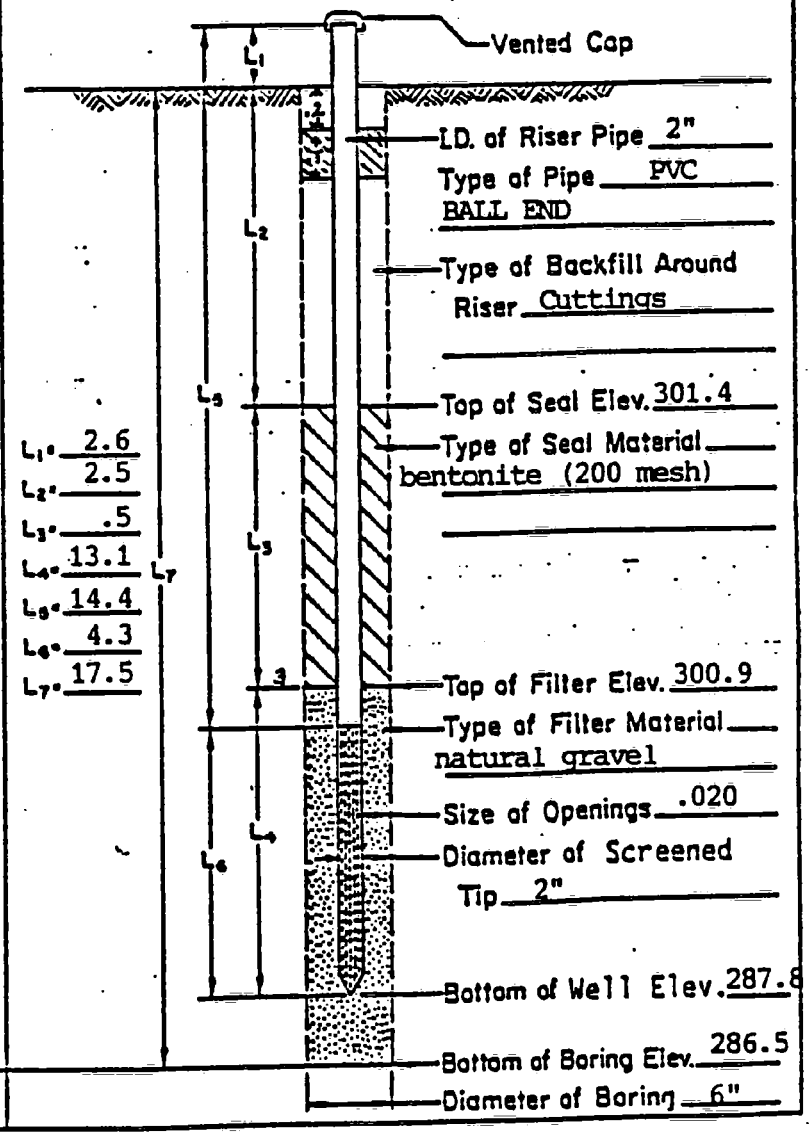
BORING

Depth in ft.	Description	Symbol
0	topsoil, tan to brown	
	silty clay, tan	
5	silt and sand, red-brown	
	gravel with silt and clay, red-brown 4"-	
10		
15		
TD	sand	
20		

OBSERVATION WELL INFORMATION

Type of WELL

Ground Elev. 303.99 Top of Riser Elev. 306.45



L_1 = 2.6
L_2 = 2.5
L_3 = .5
L_4 = 13.1
L_5 = 14.4
L_6 = 4.3
L_7 = 17.5

Remarks

Inspected By

GROUNDWATER WELL INSTALLATION REPORT

Well No. #9

Project Special Resource Management — Location Westpark - Boise

Project No. _____ Installed By Robert P. Sines Co. — Date 12-5-87 — Time _____

Method of Installation Rotary drilling w/ air - driving casing

LOG OF BORING AND WELL

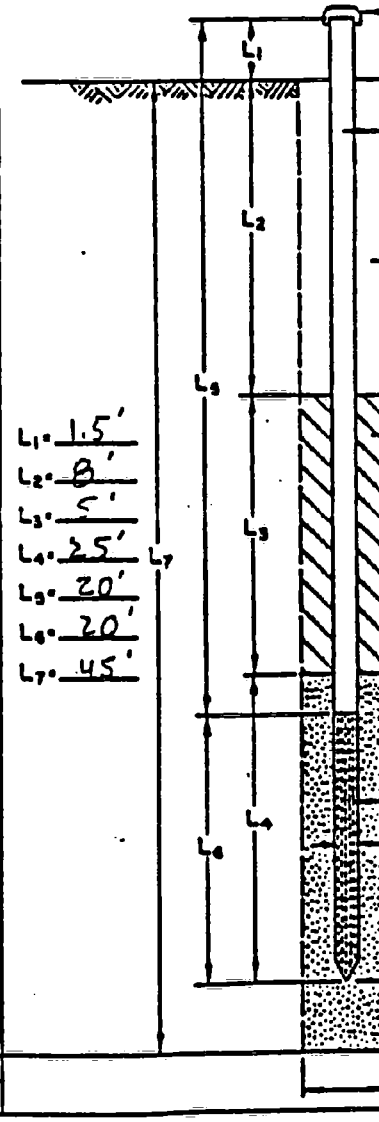
BORING

Depth in ft.	Description	Symbol
	brown silty sand -	
5'	contact w/ gravel	
	gravel	
39'		
40'	sediment layer, sandy silt w/ small gravels -	
45'	bottom of hole	

OBSERVATION WELL INFORMATION

Type of WELL observation well

Ground Elev. _____ Top of Riser Elev. _____



L_1 = 1.5'
L_2 = 8'
L_3 = 5'
L_4 = 25'
L_5 = 20'
L_6 = 20'
L_7 = 45'

- Vented Cap
- I.D. of Riser Pipe 2"
- Type of Pipe PVC
- Type of Backfill Around Riser bentonite
- Top of Seal Elev. 15'
- Type of Seal Material sand
- Top of Filter Elev. 20'
- Type of Filter Material sand
- Size of Openings 0.02
- Diameter of Screened Tip 2"
- Bottom of Well Elev. 45'
- Bottom of Boring Elev. 45'
- Diameter of Boring 3"

Remarks 5'ft sump - 20 ft screen - 20 ft solid blank
20 ft surface casing (4")

Inspected By _____

GROUNDWATER WELL INSTALLATION REPORT

Well No. #10

Project Special Resource Management - 1 Location Westpark - Boise

Project No. _____ Installed By Robert P. Jones Co. Date 12-3-87 Time _____

Method of Installation Rotary drilling w/ air - driving casing

LOG OF BORING AND WELL

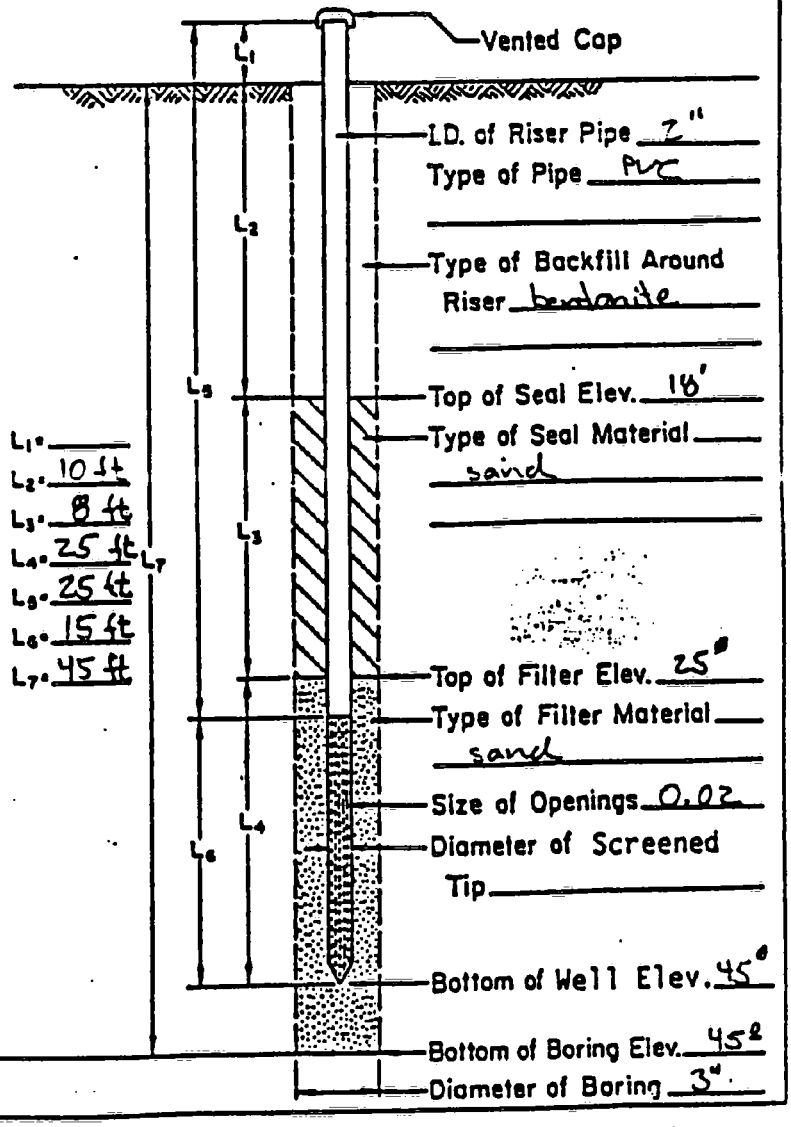
BORING

Depth in ft.	Description	Symbol
	silty sand - hardpan	
4'	contact w/ gravel	
43'	sediment layer	
45'	bottom of hole	

OBSERVATION WELL INFORMATION

Type of WELL Observation well

Ground Elev. _____ Top of Riser Elev. _____



L1 = _____
L2 = 10 ft
L3 = 8 ft
L4 = 25 ft
L5 = 25 ft
L6 = 15 ft
L7 = 45 ft

Vented Cap

I.D. of Riser Pipe 2"

Type of Pipe PVC

Type of Backfill Around Riser bentonite

Top of Seal Elev. 18'

Type of Seal Material sand

Top of Filter Elev. 25'

Type of Filter Material sand

Size of Openings 0.02

Diameter of Screened Tip _____

Bottom of Well Elev. 45'

Bottom of Boring Elev. 45'

Diameter of Boring 3"

Remarks 5 ft sump on bottom. 15' of screen, 25 ft of blank pipe 20' of surface casing (4")

Inspected By _____

GROUNDWATER WELL INSTALLATION REPORT

Well No. # 11

Project Special Resource Management Location Westpark - Boise

Project No. _____ Installed By Robert P. Jones Co. Date 12-4-87 Time _____

Method of Installation Rotary drilling w/air - driving casing

LOG OF BORING AND WELL

BORING

Depth in ft.	Description	Symbol
	sandy silt	
4'	contact w/ gravel	
	gravel	
36'	sediment layer	
43'	bottom of hole	

OBSERVATION WELL INFORMATION

Type of WELL observation well

Ground Elev. _____ Top of Riser Elev. _____

Vented Cap

L_1 = _____

L_2 = 15 ft

L_3 = 5 ft

L_4 = 23 ft

L_5 = 23 ft

L_6 = 15 ft

L_7 = 43 ft

I.D. of Riser Pipe 2"

Type of Pipe PVC

Type of Backfill Around Riser bentonite

Top of Seal Elev. _____

Type of Seal Material sand

Top of Filter Elev. 23'

Type of Filter Material sand

Size of Openings 0.02

Diameter of Screened Tip 2"

Bottom of Well Elev. 38'

Bottom of Boring Elev. 43'

Diameter of Boring 3"

Remarks 5 ft sump, 15 ft of slotted, 23' blank

20 ft surface casing (4")

Inspected By _____

GROUNDWATER WELL INSTALLATION REPORT

Project SRM — Well No. 12

Project No. _____ Installed By Bob Jones Drilling — Location Westpark

Completed Date 12-15-87 Time _____

Method of Installation Hollow stem auger; bore hole was drilled 4 to 5 days before well installation; drill rig mechanical problems.

LOG OF BORING AND WELL

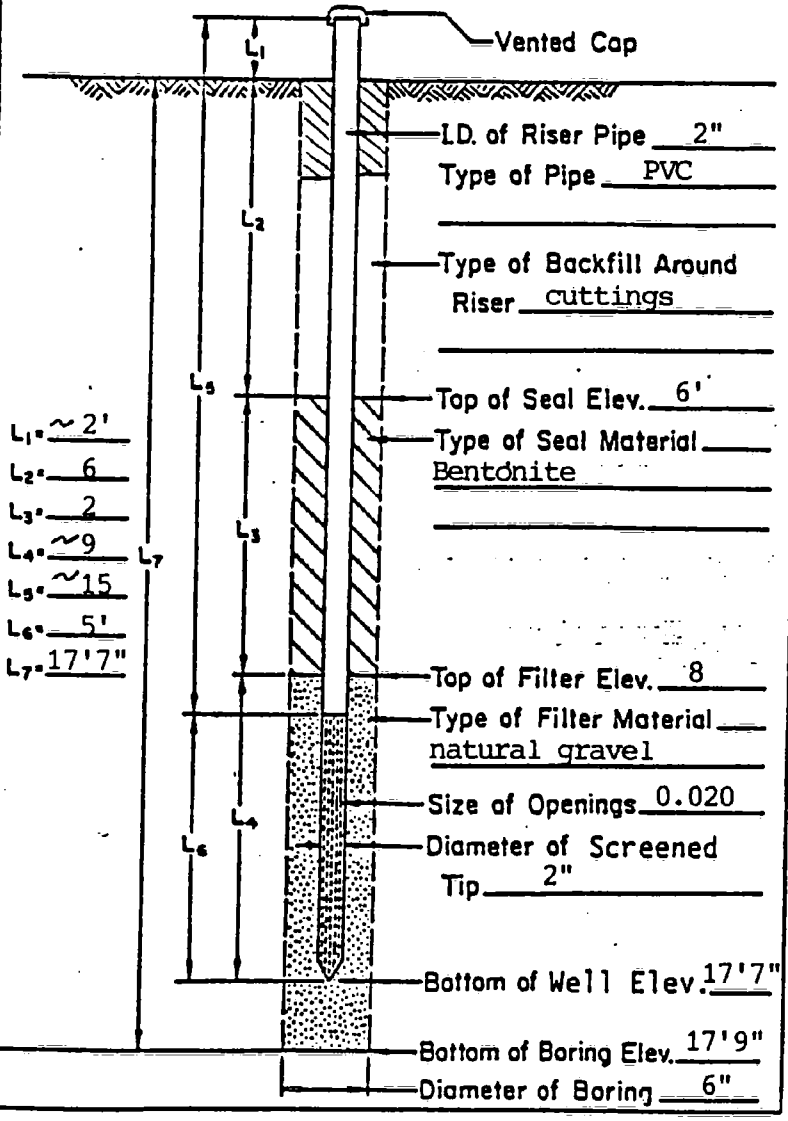
BORING

Depth in ft.	Description	Symbol
	top soil, brown	
	clay, tan-red	
5	contact with gravel and medium sand some cobbles	
10		
15		
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL monitoring well

Ground Elev. 0 — Top of Riser Elev. ~ 2'



Vented Cap

I.D. of Riser Pipe 2"

Type of Pipe PVC

Type of Backfill Around Riser cuttings

Top of Seal Elev. 6'

Type of Seal Material Bentonite

L_1 = ~ 2'
L_2 = 6
L_3 = 2
L_4 = ~9
L_5 = ~15
L_6 = 5'
L_7 = 17'7"

Top of Filter Elev. 8

Type of Filter Material natural gravel

Size of Openings 0.020

Diameter of Screened Tip 2"

Bottom of Well Elev. 17'7"

Bottom of Boring Elev. 17'9"

Diameter of Boring 6"

Remarks elevations are given in distance from ground surface, survey data not available at time of logging, 2 ft. bentonite seal at top of well

Inspected By _____

GROUNDWATER WELL INSTALLATION REPORT

Project SRM — Well No. 13

Project No. _____ Installed By Bob Jones Drilling — Location Westpark

Date 12-15-87 Time ~11:00 - 5:00

Method of Installation Backhoe to 8 ft., completed with hollow stem auger

LOG OF BORING AND WELL

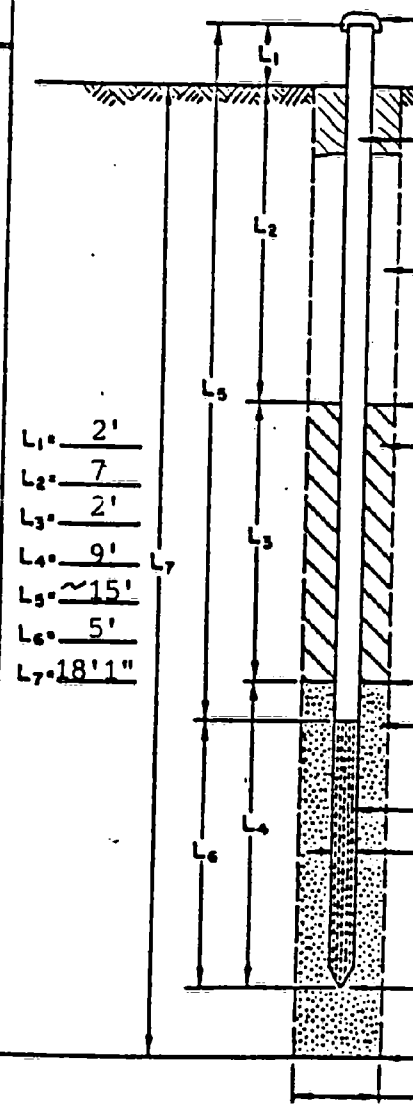
BORING

Depth in ft.	Description	Symbol
	top soil, brown	
	clay, tan-red	
	contact w/gravel	
5		
10		
15		
TD	sand, gravel and cobbles	
20		

OBSERVATION WELL INFORMATION

Type of WELL monitoring well

Ground Elev. 0 — Top of Riser Elev. ~2



L1 = 2'
L2 = 7
L3 = 2'
L4 = 9'
L5 = ~15'
L6 = 5'
L7 = 18'1"

Vented Cap

I.D. of Riser Pipe 2"

Type of Pipe PVC

Type of Backfill Around Riser cuttings

Top of Seal Elev. 7 ft.

Type of Seal Material bentonite

Top of Filter Elev. 9

Type of Filter Material natural sand & gravel

Size of Openings 0.020

Diameter of Screened Tip 2"

Bottom of Well Elev. 18'

Bottom of Boring Elev. 18'1"

Diameter of Boring 6"

Remarks elevations are given in distance from ground surface, 2 ft. bentonite seal at top of the well, hole dug to 8 ft. with backhoe due to drilling difficulties

Inspected By _____

JUNDWATER WELL INSTALLATION RE .T

Well No. 14

Project Special Resource Management Location Westpark

Project No. _____ Installed By Northern Testing Date 1-9-88 Time 12:00 pm

Method of Installation 8" hollow stem auger

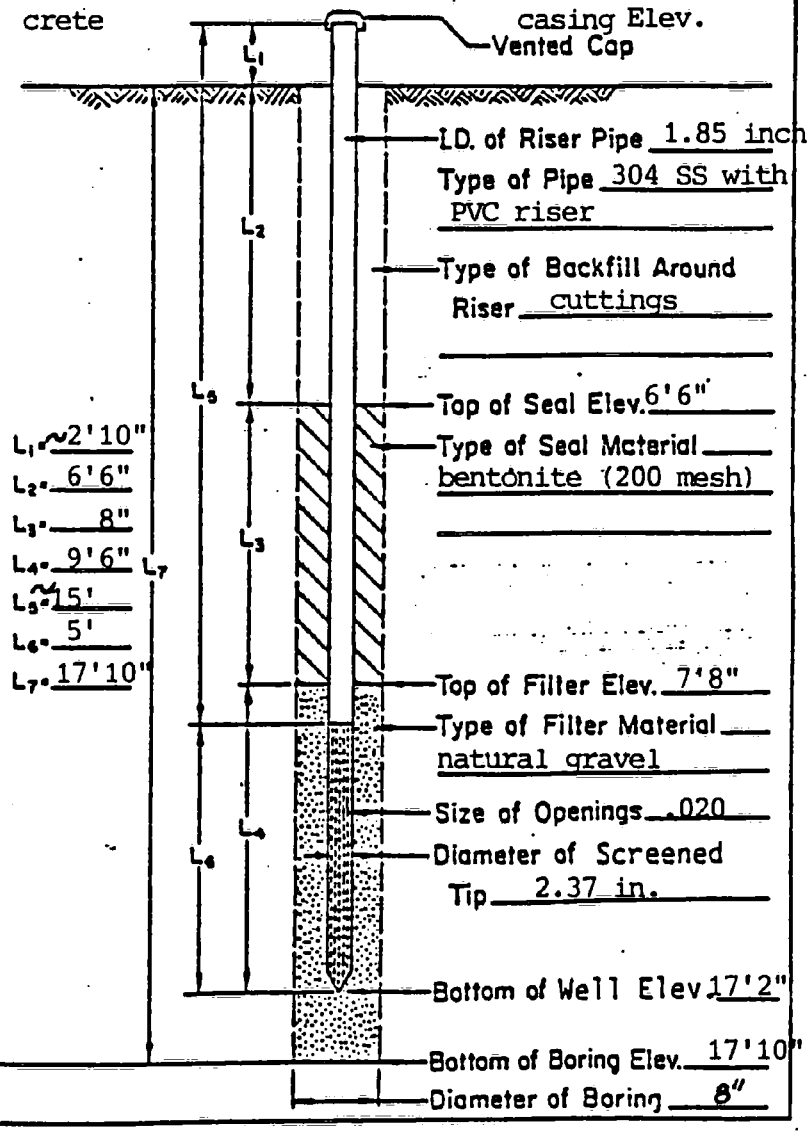
LOG OF BORING AND WELL

BORING

Depth in ft.	Description	Symbol
0	asphalt	
	gravel fill	
	Silty clay red-brown	
5		
	gravel & silty clay	
10		
15	sand layer	
	gravel	
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL monitoring



L1 ≈ 2'10"
L2 = 6'6"
L3 = 8"
L4 = 9'6"
L5 ≈ 15'
L6 = 5'
L7 = 17'10"

Remarks well measurements taken from ground surface
6" of silica sand placed below bentonite
6" bentonite surface seal with 4 inches cement pad
6" steel casing and locking cap

Inspected By _____

GROUNDWATER WELL INSTALLATION REPORT

Well No. 15

Project Special Resource Management Location Westpark

Project No. _____ Installed By Northern Testing Date 1-9-89 Time 2:18 pm

Method of Installation 8" hollow stem auger

LOG OF BORING AND WELL

BORING

Depth in ft.	Description	Symbol
0	silty clay - red brown	
5	caliche hard clay, sand, gravel	
	gravel & silt	
10		
	large gravel 1 to 4 inch	
15	sand layer (heaving) sand & gravel	
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL monitoring

Concrete Elev. 2691.80

Top of steel casing Elev. 2693.70

Vented Cap

L_1 = ~2'5"

L_2 = 6'4"

L_3 = 2'

L_4 = 9'3"

L_5 = ~10'

L_6 = 10'

L_7 = 17'10"

I.D. of Riser Pipe 1.85 inch

Type of Pipe PVC - Johnson

Type of Backfill Around Riser cuttings

Top of Seal Elev. 6'4"

Type of Seal Material bentonite (200 mesh)

Top of Filter Elev. 8'4"

Type of Filter Material natural gravel

Size of Openings .020

Diameter of Screened Tip 2.37 in.

Bottom of Well Elev. 17'7"

Bottom of Boring Elev. 17'10"

Diameter of Boring 8"

Remarks well measurements taken from ground surface
6" of silica sand placed below bentonite
6" bentonite surface seal with 4 inches cement pad
6" steel casing and locking cap

Inspected By _____

GROUNDWATER WELL INSTALLATION REPORT

Well No. 16

Project Special Resource Management Location Westpark

Project No. _____ Installed By Northern Testing Date 1-10-85 Time 8:20 am

Method of Installation 8" hollow stem auger

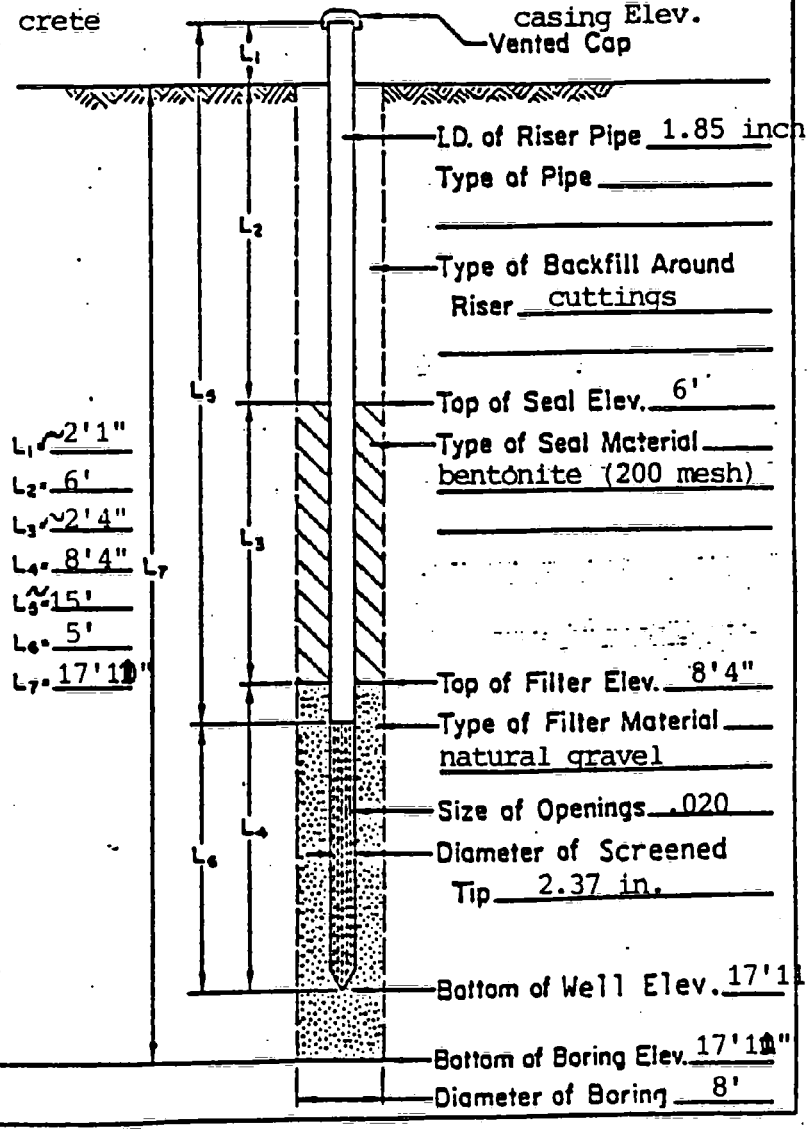
LOG OF BORING AND WELL

BORING

Depth in ft.	Description	Symbol
0	Top soil - dark brown	
	light red clay - silt	
5	wet clay	
	sand, gravel with silt	
10		
15		
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL monitoring



I.D. of Riser Pipe 1.85 inch

Type of Pipe _____

Type of Backfill Around Riser cuttings

Top of Seal Elev. 6'

Type of Seal Material bentonite (200 mesh)

L_1 ~2'1"
L_2 6'
L_3 ~2'4"
L_4 8'4"
L_5 ~15'
L_6 5'
L_7 17'11"

Top of Filter Elev. 8'4"

Type of Filter Material natural gravel

Size of Openings .020

Diameter of Screened Tip 2.37 in.

Bottom of Well Elev. 17'11"

Bottom of Boring Elev. 17'11"

Diameter of Boring 8'

Remarks well measurements taken from ground surface
6" of silica sand placed below bentonite
6" bentonite surface seal with 4 inches cement pad
6" steel casing and locking cap

Inspected By _____

GROUNDWATER WELL INSTALLATION REPORT

Well No. 17

Project Special Resource Management Location Westpark

Project No. _____ Installed By Northern Testing Date 1-10-88 Time 9:30 am

Method of Installation 8" hollow stem auger

LOG OF BORING AND WELL

BORING

Depth in ft.	Description	Symbol
0	Top Soil - light brown	
	Red Clay	
5	small gravel & silt (.5 to 1 inch gravel)	
	2 inch gravel and silt	
10		
	sand and gravel (heaving)	
15		
TD		
20		

OBSERVATION WELL INFORMATION

Type of WELL monitoring

Concrete: Elev. 2689.03

Top of steel casing Elev. 2690.99

Vented Cap

L_1 = 2'

L_2 = 6'

L_3 = 2'

L_4 = 8'6"

L_5 = 15'

L_6 = 5'

L_7 = 17'10"

I.D. of Riser Pipe 1.85 inch

Type of Pipe _____

Type of Backfill Around Riser cuttings

Top of Seal Elev. 6'0"

Type of Seal Material bentonite (200 mesh)

Top of Filter Elev. 8'0"

Type of Filter Material natural gravel

Size of Openings .020

Diameter of Screened Tip 2.37 in.

Bottom of Well Elev. 16'6"

Bottom of Boring Elev. 17'10"

Diameter of Boring 8"

Remarks well measurements taken from ground surface

6" of silica sand placed below bentonite

6" bentonite surface seal with 4 inches cement pad

6" steel casing and locking cap

Inspected By _____

APPENDIX K

WELL DRILLING PERMITS

Drilling Status	SRM Well Number	Depth	Location (T3N;R1E;Sec 12)
Completed	SRM-WP-W-004	≈ 17 feet	a d c
Completed	SRM-WP-W-005	≈ 17 feet	d a c
Completed	SRM-WP-W-006	≈ 16 feet	a d c
Completed	SRM-WP-W-007	≈ 17 feet	d a c
Completed	SRM-WP-W-008	≈ 17 feet	a d c

We would like to hold the unused permits in case additional deep wells are desired in the previously permitted locations. It's my understanding that the permits are valid for two months after the date of issuance. The attached map should help clarify the new locations and well numbering.

Please call me if you need further information or have any questions.

Sincerely,

SPECIAL RESOURCE MANAGEMENT

Bradley Harr

Bradley Harr
Client Service Representative

Attach.

BH2/286.2

Special Resource Management
Specialists in Waste and Resource Management Technology

November 17, 1987

John Carlson
Department of Water Resources
Statehouse
Boise, ID 83720

Dear Mr. Carlson:

Attached for your review and action are seven monitoring well permit applications. The wells are to be utilized for groundwater quality monitoring on properties proposed for commercial development. All of the wells are located in Section 12 of Township 3 North, Range 1 East. The attached map shows the proposed general location for the wells (+ 20 yds.). The exact location will be determined in the field giving consideration to irrigation laterals and utility rights-of-way.

The wells will be drilled to depths of 20 to 50 feet depending on site specific conditions. Well construction will will vary with the types of material encountered during drilling. Our preferred construction will utilize 4 inch steel pipe, a natural sand and gravel filter pack (saturated zone), sodium bentonite (saturated and unsaturated zone), and cement (top three feet). The placement of well screens will be determined in the field during well drilling. The attached diagram shows a general cross section for the type of well we will attempt to install. Attached to each application is an alternative design in case we encounter problems driving and pulling the casing.

At this time, it is uncertain if the wells will be abandoned in the near future (1 to 2 years). If the wells are to be abandoned, they will be sealed with a sand and portland cement grout.

If you have any questions, please call me.

Sincerely,
SPECIAL RESOURCE MANAGEMENT

Bradley D. Harr

Bradley Harr
Client Service Representative

Encs.

BH1.270.1

o/87

Drilling Permit No. 63-87-Z-081
Water Permit No. _____
Injection Permit No. _____

State of Idaho
Department of Water Resources

~~SRM-WP-W-005~~
new SRM #
SRM-WP-W-009

DRILLING PERMIT

(Authorizing Construction of a Well)*

1. Applicant Special Resource Management, Inc.
2. Address 200 N. 4th, Suite 206
   Boise, ID 83702
   ( ) Well Owner ( ) Well Operator (X) Other, specify Environmental Consultant
3. Water right permit no. N/A ; Injection well permit no. N/A
4. Proposed well location SW C 1/4 NE A 1/4 SW C 1/4, or Gov't lot No. _____,
   Sec. 12, Twp. 3N, Rge. 1E, County Ada,
   Lot, block and subdivision _____
5. Proposed use of well: (Check all that apply)
   ( ) Domestic ( ) Stockwater (X) Monitoring
   ( ) Irrigation ( ) Industrial ( ) Municipal
   ( ) Injection ( ) Other, Specify _____
6. Well construction information:
   (X) New well ( ) Deepen ( ) Replace
   Proposed surface diameter 5.0 to 3.5 inches ; Proposed depth 30 to 50 feet
   Anticipated bottom hole temperature:
   (X) 85° F or less (Cold water well)
   ( ) 85° F to 212° F (Low temp. geothermal well)
   ( ) 212° F or more (Geothermal well)
7. Anticipated construction start date November 18, 1987
8. Well Driller (if known) (Possible) Jones R P Drilling Co.
   Address 3328 Scenic Dr., Boise, ID
   Date 11/13/87 Applicant's signature Bradley W Harr
   Title Sr. Client Service Representative

* After other pre-requisite approvals have been obtained.

✓ Approved ( ) Denied

The approval of this permit authorizes the construction of a well as described on this application subject to the conditions on this permit.

GENERAL CONDITIONS:

1. The well must be constructed in compliance with the applicable statutes, specific conditions of approval shown on the water right permit, injection well permit, transfer or amendment and the rules and regulations of the Department for water appropriation, injection wells and well construction standards.

2. This drilling permit is valid for two (2) months from its date of issuance for the start of construction and is valid for one (1) year from the date of issuance for completion of the well unless an extension has been granted.

3. The permit holder or his representative shall notify the Department ten (10) days prior to the start of construction unless good cause for later notification can be shown.

4. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.

5. Issuance of this drilling permit does not authorize trespass on the land of another party.

6. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.

SPECIFIC CONDITIONS:

7. Item 3 above is not required.
8. The well shall be constructed by a licensed driller.
9. A minimum surface seal of 18 feet shall be provided unless approval for less is granted.
10. The Department shall be notified when the wells are abandoned.
11. Abandonment shall be as specified in the November 17, 1987 letter or as approved by the Department.

Dated this 19th day of November, 1987

Signed John C Reed

Title SECTION MANAGER
GROUNDWATER PROTECTION

Receipted by rg Fee 70.00 Date 11/18/87

Receipt No. 45701 Construction start date

Construction start extension to

Extension approved by

6/87

Drilling Permit No. 63-87-Z-086
Water Permit No. _____
Injection Permit No. _____

State of Idaho
Department of Water Resources SRM-WP-W-0010

DRILLING PERMIT

(Authorizing Construction of a Well)*

1. Applicant Special Resource Management, Inc.
2. Address 200 N. 4th, Suite 206
   Boise, ID 83702
   ( ) Well Owner ( ) Well Operator (X) Other, specify Environmental Consultant
3. Water right permit no. N/A ; Injection well permit no. N/A
4. Proposed well location NW 1/4 NE 1/4 SW 1/4, or Gov't lot No. _____,
   Sec. 12, Twp. 3N, Rge. 1E, County Ada,
   Lot, block and subdivision _____
5. Proposed use of well: (Check all that apply)
   ( ) Domestic ( ) Stockwater (X) Monitoring
   ( ) Irrigation ( ) Industrial ( ) Municipal
   ( ) Injection ( ) Other, Specify _____
6. Well construction information:
   (X) New well ( ) Deepen ( ) Replace
   Proposed surface diameter 5.0 to 3.5 inches Proposed depth 30 to 50 feet
   Anticipated bottom hole temperature:
   (X) 85° F or less (Cold water well)
   ( ) 85° F to 212° F (Low temp. geothermal well)
   ( ) 212° F or more (Geothermal well)
7. Anticipated construction start date November 18, 1987
8. Well Driller (if known) (Possible) Jones R P Drilling Co.
   Address 3328 Scenic Dr., Boise, ID
   Date 11/13/87 Applicant's signature Bradley D. Harr
   Title Sr. Client Service Representative

* After other pre-requisite approvals have been obtained.

✓ Approved ( ) Denied

67-47-2-EV 07
P1 85
P2 86

The approval of this permit authorizes the construction of a well as described on this application subject to the conditions on this permit.

GENERAL CONDITIONS:

1. The well must be constructed in compliance with the applicable statutes, specific conditions of approval shown on the water right permit, injection well permit, transfer or amendment and the rules and regulations of the Department for water appropriation, injection wells and well construction standards.

2. This drilling permit is valid for two (2) months from its date of issuance for the start of construction and is valid for one (1) year from the date of issuance for completion of the well unless an extension has been granted.

3. The permit holder or his representative shall notify the Department ten (10) days prior to the start of construction unless good cause for later notification can be shown.

4. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.

5. Issuance of this drilling permit does not authorize trespass on the land of another party.

6. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.

SPECIFIC CONDITIONS:

7. Item 3 above is not required.
8. The well shall be constructed by a licensed driller.
9. A minimum surface seal of 18 feet shall be provided unless approval for less is granted.
10. The Department shall be notified when the wells are abandoned.
11. Abandonment shall be as specified in the November 17, 1987 letter or as approved by the Department.

Dated this 19th day of November, 1987

Signed John C. Reed

Title SECTION MANAGER
GROUNDWATER PROTECTION

7-11-88

Receipted by [illegible] Fee 70.00 Date 11/18/87

Receipt No. 45701 Construction start date

Construction start extension to

Extension approved by

6/87

Drilling Permit No. 63-87-2-082
Water Permit #
Injection Permit No.

State of Idaho
Department of Water Resources

~~SRM-WP-W-006~~

new # SRM-WP-W-011

DRILLING PERMIT

(Authorizing Construction of a Well)*

1. Applicant Special Resource Management, Inc.
2. Address 200 N. 4th, Suite 206
   Boise, ID 83702
   ( ) Well Owner ( ) Well Operator (X) Other, specify Environmental Consultant
3. Water right permit no. N/A ; Injection well permit no. N/A
4. Proposed well location b (NE) 1/4 c (SW) 1/4 d (SE) 1/4, or Gov't lot No. ____,
   Sec. 12, Twp. 3N, Rge. 1E, County Ada,
   Lot, block and subdivision ____
5. Proposed use of well: (Check all that apply)
   ( ) Domestic ( ) Stockwater (X) Monitoring
   ( ) Irrigation ( ) Industrial ( ) Municipal
   ( ) Injection ( ) Other, Specify ____
6. Well construction information:
   (X) New well ( ) Deepen ( ) Replace
   Proposed surface diameter 5.0 to 3.5 inches Proposed depth 30 to 50 feet
   Anticipated bottom hole temperature:
   (x) 85°F or less (Cold water well)
   ( ) 85°F to 212°F (Low temp. geothermal well)
   ( ) 212°F or more (Geothermal well)
7. Anticipated construction start date November 18, 1987
8. Well Driller (if known) (Possible) Jones R P Drilling Co.
   Address 3328 Scenic Dr., Boise, ID
   Date 11/13/87 Applicant's signature Bradley D. Harr
   Title Sr. Client Service Representative

* After other pre-requisite approvals have been obtained.

(✓) Approved ( ) Denied 6-87-Z-80 81 82 83 87 85 86

The approval of this permit authorizes the construction of a well as described on this application subject to the conditions on this permit.

GENERAL CONDITIONS:

1. The well must be constructed in compliance with the applicable statutes, specific conditions of approval shown on the water right permit, injection well permit, transfer or amendment and the rules and regulations of the Department for water appropriation, injection wells and well construction standards.

2. This drilling permit is valid for two (2) months from its date of issuance for the start of construction and is valid for one (1) year from the date of issuance for completion of the well unless an extension has been granted.

3. The permit holder or his representative shall notify the Department ten (10) days prior to the start of construction unless good cause for later notification can be shown.

4. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.

5. Issuance of this drilling permit does not authorize trespass on the land of another party.

6. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.

SPECIFIC CONDITIONS:

7. Item 3 above is not required.
8. The well shall be constructed by a licensed driller.
9. A minimum surface seal of 18 feet shall be provided unless approval for less is granted.
10. The Department shall be notified when the wells are abandoned.
11. Abandonment shall be as specified in the November 17, 1987 letter or as approved by the Department.

Dated this 19th day of November, 1987

Signed John C Bell

Title SECTION MANAGER GROUNDWATER PROTECTION

Receipted by [illegible] Fee 70.00 Date 11/ 5/87

Receipt No. 45701 Construction start date ____________

Construction start extension to ____________

Extension approved by ____________

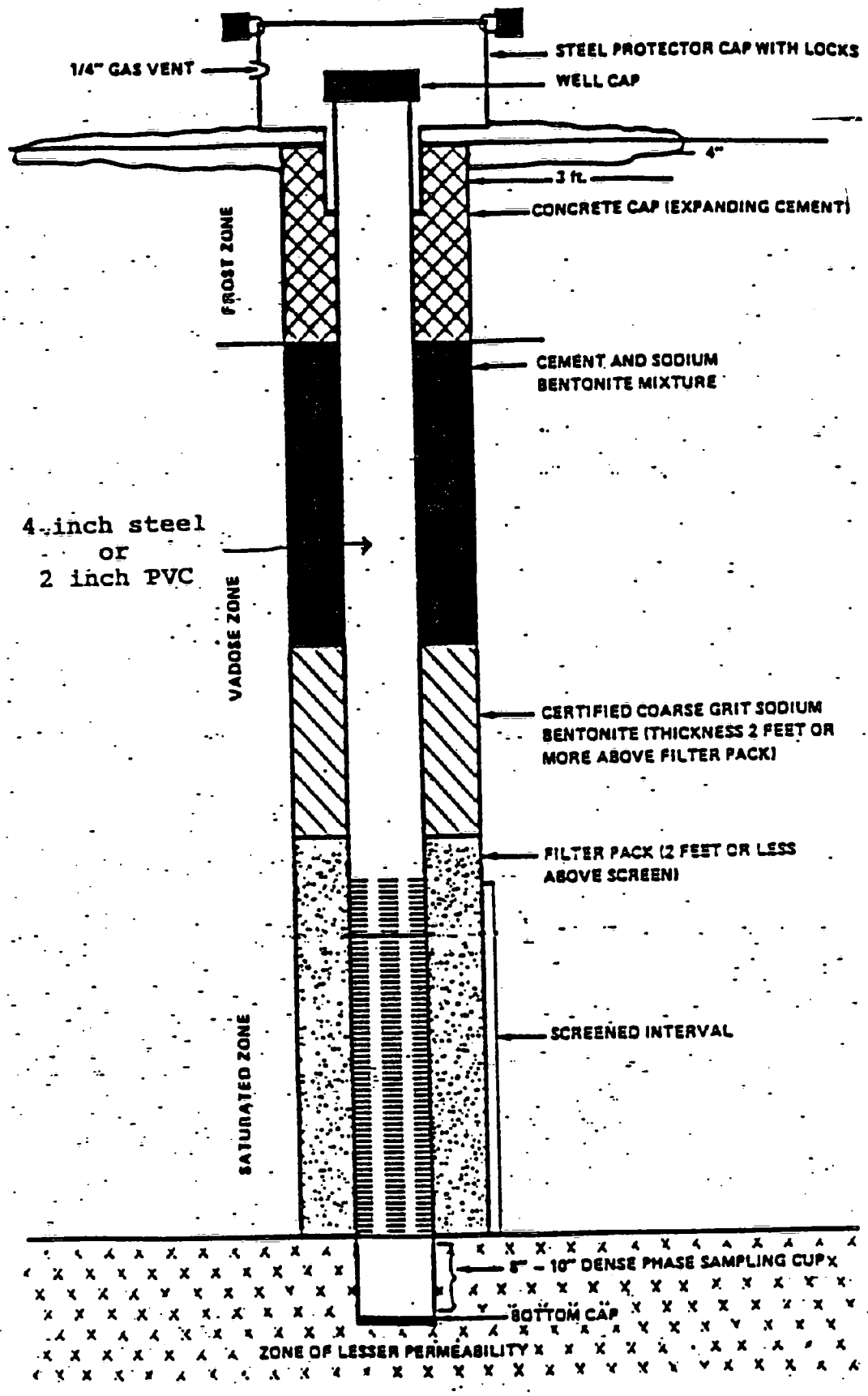
WELL CONSTRUCTION

Preferred Option

Drilling method - air rotary
Casing - 4 inch steel
Filter Pack - natural sand and gravel
Annular Sealant - coarse grit sodium bentonite slurry
Annular Sealant (unsaturated zone) - bentonite pellets with top 3 feet cement
Steel protector cap with locks

Alternative 1

Drilling Method - hollow stem auger
Casing - 2 inch PVC
Filter Pack - inert sand
Annular Sealant - coarse grit sodium bentonite slurry
Annular Sealant (unsaturated zone) - bentonite pellets with top 3 feet cement
Steel protector cap with locks



GENERAL MONITORING WELL – CROSS SECTION

Special Resource Management, Inc.
Specialists in Waste and Resource Management Technology

December 2, 1987

John Carlson
Department of Water Resources
Statehouse
Boise, ID 83720

Dear Mr. Carlson:

The purpose of this letter is to provide you with a follow-up of our telephone conversation of November 24, 1987. As we discussed, I have changed our numbering system for the monitoring wells that were proposed for permits on November 17, 1987.

Our original drilling plan called for seven (7) deep wells at the locations proposed in my letter of November 17, 1987. Upon further consideration it was determined that 3 deep wells (20 to 50 feet) and 5 shallow wells (15 to 17 feet) would be installed. Since the shallow wells were drilled first, our well numbering sequence was changed. The following table shows new SRM well numbers for the deep wells requiring permits:

Drilling Status	DWR Drilling Permit No.	Old SRM Number	New SRM Number	Depth
---	63-87-2-080	SRM-WP-W-004	Not drilled	---
in progress	63-87-2-081	SRM-WP-W-005	SRM-WP-W-009	≈ 40 feet
completed	63-87-2-082	SRM-WP-W-006	SRM-WP-W-011	40-45 feet
---	63-87-2-083	SRM-WP-W-007	not drilled	---
---	63-87-2-084	SRM-WP-W-008	not drilled	---
---	63-87-2-085	SRM-WP-W-009	not drilled	---
in progress	63-87-2-086	SRM-WP-W-010	SRM-WP-W-010 (same #)	≈ 40 feet

In addition to these three (3) deep wells (Permit Nos. 63-87-2-081, 63-87-2-082, 63-87-2-086), we have installed five (5) shallow wells in slightly different locations than originally planned for the other four deep wells (Permit Nos. 63-87-2-080, 63-87-2-083, 63-87-2-084, 63-87-2-085). The location and status of the five (5) shallow wells are as follows:

BH2/286.1

APPENDIX L

WELL LOG REVIEW

IDAHO DEPARTMENT OF WATER RESOURCES
WELL LOG REVIEW

Introduction and Purpose

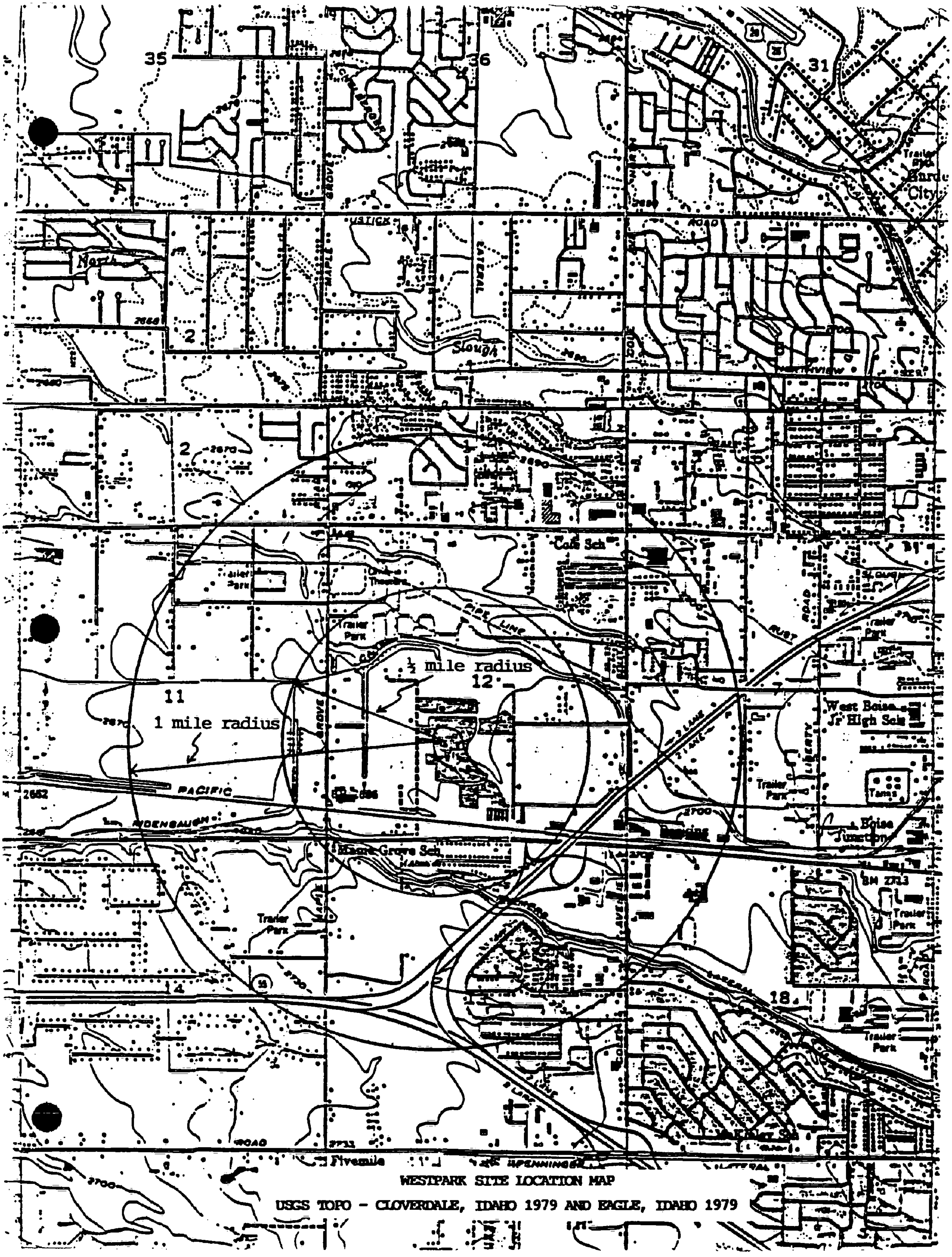
On December 14 and 15, 1987, well logs on file with the Idaho Department of Water Resources, 2735 Airport Way, Boise, Idaho were reviewed to assess whether the shallow water table aquifer at Westpark is being utilized as a source of public or private drinking water. Tetrachloroethene has been identified in the shallow aquifer (< 60 ft. deep) at Westpark in concentrations above the recommended EPA long-term drinking water standard for the chemical. Concern over the potential impact of the contaminated groundwater on drinking water supplies in the vicinity of Westpark has led to this well log review.

Study Methodolcgy

The Westpark Subdivision is located in T3N R1E Section 12. The groundwater, as determined in the second environmental assessment report prepared by Special Resource Management, generally flows in the northwest direction. A study area of 1/2 mile radius surrounding the Westpark side (see following figure) was selected to ascertain the number of wells and population potentially impacted by the contaminated plume of groundwater. Those sections identified within the 1/2 mile radius include sections 11, 12 and 13. Although sections 1 and 2 were not within the 1 mile radius, they were included in the well log review as both are downgradient (northwest) from Westpark. Section 14 (within a 1 mile radius) was also included in the review as it encompasses a large population and number of wells. No well log search was done for sections 7 and 18 as both are upgradient from the flow of contaminated groundwater (although within a 1 mile radius).

Well logs recorded on micro-fiche were cross-referenced with backup paper copies to ensure that all well logs for the selected sections were identified.

Information obtained in the well log search included well owner and address, nature of work, proposed use, well depth and location, static water level and the date the well was drilled/ completed. Many of the well logs on file were lacking specific information. A discrepancy was noted between the number of well logs recorded on micro-fiche and those on hard back-up copies, and it was felt that 20 to 40% of the wells in the area were probably not on file with the Department. The recorded well log information can be summarized as follows by Section:



WESTPARK SITE LOCATION MAP

USGS TOPO - CLOVERDALE, IDAHO 1979 AND EAGLE, IDAHO 1979

Section	Total # of Wells Recorded	Total Recorded Wells < 60 ft.	Total Recorded Wells > 60 ft.
1	40	23	17
2	66	22	44
11	28	11	17
12	26	15	11
13	32	0	32
14(NE quad)	18	0	18
TOTAL	210	71	139

The following two figures show wells located to the nearest quarter of a quarter section. There is a discrepancy between the total number of wells recorded in the well logs as summarized above, and the number that were located by quarter/quarter section and depicted in the following figures. This difference is due to the fact that all well logs were not filled out completely and the quarter section location was missing in some instances which made it impossible to locate those wells to the quarter/quarter section. Well log information for the following figures can be summarized as follows by Section:

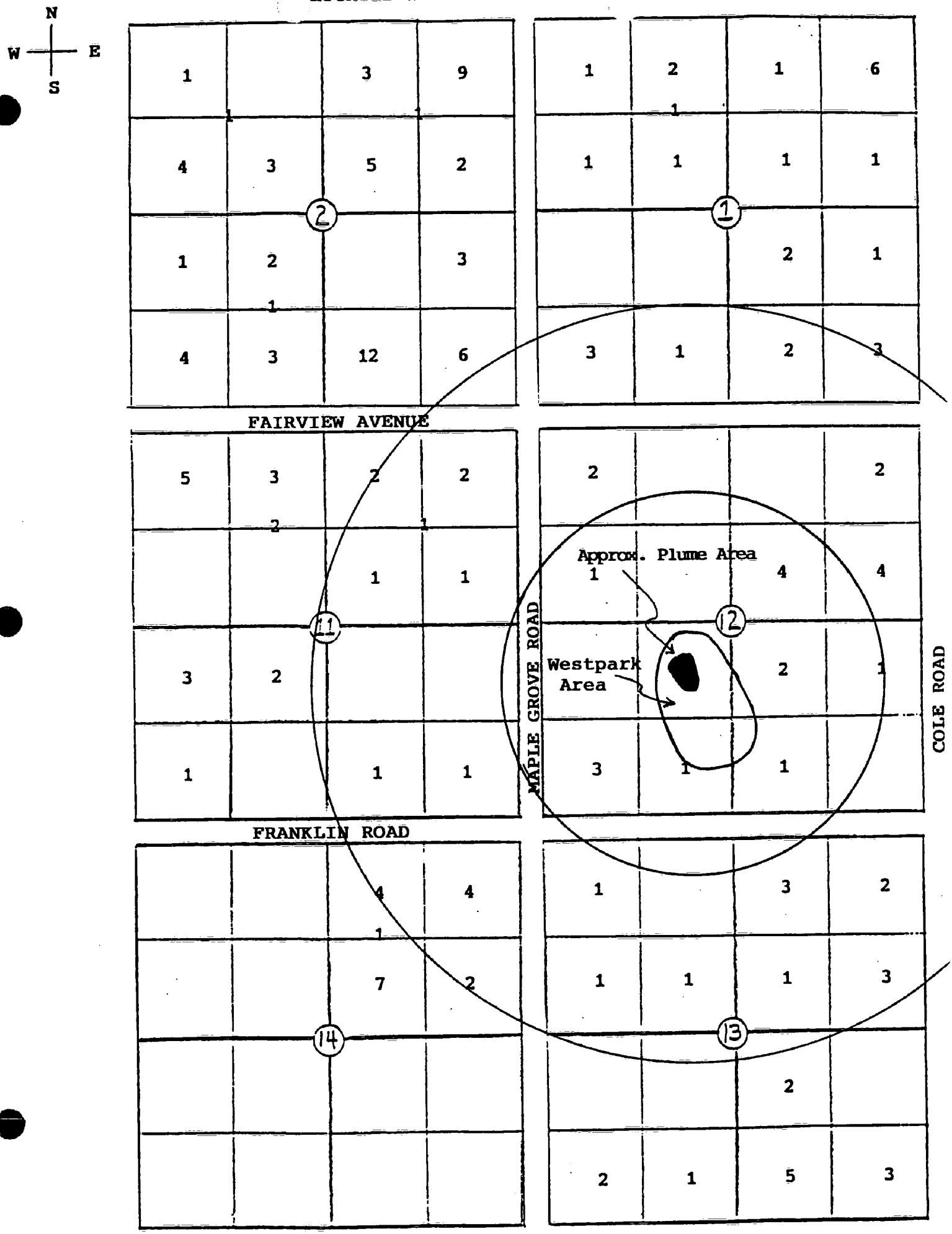
Section	Total # of Wells Located	Located Wells < 60 ft.	Located Wells > 60 ft.
1	27	15	12
2	61	21	40
11	25	10	15
12	21	11	10
13	25	0	25
14(NE quad)	18	0	18
TOTAL	177	57	120

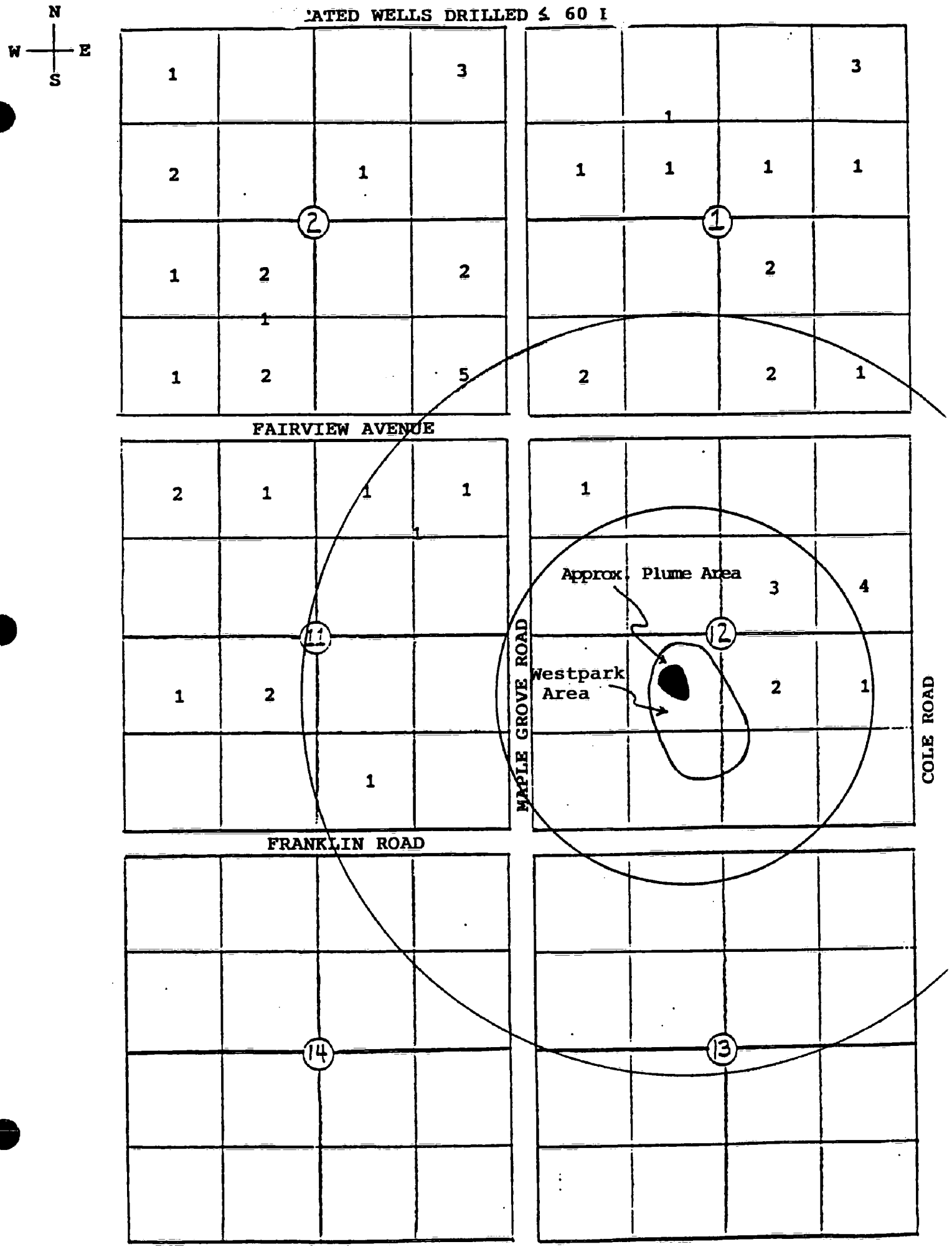
Only well logs for the NE quarter of section 14 were included since the mile radius encompassed only this quarter of the section. The total number of wells on record for the entire section was in excess of 300, however, only 18 were identified in the NE quarter section.

Results

In general, 25 wells were located within the 1/2 mile radius of the Westpark area. Of these, 11 are ≤ 60 ft. and 14 are > 60 ft. in depth. It is reasonable to assume that the wells < 60 ft. are or were drawing water from the shallow aquifer.

LOCATED WELL LOCATIONS




N
W
E
S
ATED WELLS DRILLED ≤ 60 I
FAIRVIEW AVENUE
FRANKLIN ROAD
MAPLE GROVE ROAD
COLE ROAD
Approx. Plume Area
Westpark Area
11
12
14
13

Janie Gregory of the Boise Water Corporation (BWC) was questioned to determine if individuals on private wells had converted to public drinking water. Of the 25 wells within the 1/2 mile radius of the Westpark area 14 contained enough information on their well logs to be cross-referenced with BWC to determine if the wells had indeed converted to public water. Only 3 of the 14 wells were shown to have converted to public water. Since the remaining 11 did not show up on BWC records, Miss Gregory said that it would be reasonable to assume that they were still utilizing the private well for drinking water. Although there are other water companies in Boise, only the BWC services the area in question. Some of the remaining 11 private wells may be abandoned since many of the older farm houses in the area have been removed. (b) (6) [redacted]

A random check of wells in sections 1, 2 and 11 revealed that approximately 20% of the private wells had converted to public (BWC) supplied drinking water. This is the same percentage that was found to have converted in Section 12.

Representative Well Drillers Reports for sections 1, 2, 11, 12, 13 and 14 are included in this Appendix. It can be seen from the Reports and the Wells Drilled $\leq$ 60 ft. figure that sections 1, 2, 11 and 12 contain the only wells that are $\leq$ 60 feet. Sections 13 and 14 have no wells drilled $\leq$ 60 ft. This is likely due to the fact that these sections lie on a bench higher than sections 1, 2, 11 and 12 making it likely that wells drilled up to 120 ft. deep in these sections are drawing water from the same shallow aquifer in question.

Conclusions

The well log review identified 25 wells located in the 1/2 mile radius surrounding Westpark. Eleven of the 25 wells were $\leq$ 60 ft. Of the eleven wells only 1 (Bud Hegstrom, 5509 Lynwood Pl.) is known to have converted to public drinking water. If the 20% conversion rate from private to public water supply is applied to the remaining 10 private wells ($\leq$ 60 ft.), there would still be a minimum of eight wells $\leq$ 60 ft. within the 1/2 mile radius that could be assumed to be drawing water from the same shallow aquifer.

Within the 1 mile radius surrounding Westpark there are approximately 79 wells which have been located of which 23 are $\leq$ 60 ft. in depth. Applying the 20% conversion estimate results in an estimated 18 wells utilizing the shallow aquifer within a 1 mile radius of the Westpark site. A number of these are of course upgradient of the known plume area and some are possibly abandoned (old farm houses).

The Department's well log file does not contain well logs for every well drilled in Idaho. To determine the exact number of potential water users drawing from the shallow aquifer within the 1/2 to 1 mile radius of the study area would require a visit to each location. The available data does suggest that there are at least 8 wells that may be utilizing this source within a 1/2 mile radius of Westpark.

Private well sampling would be required to determine if contaminated water is being utilized within the Westpark area since the downgradient extent of the plume has not been identified.

PAGE 1	T3N R1E SECTION 1 NAME	ADDRESS	NATURE OF WORK	PROPOSED USE	Total DEPTH	STATIC WATER	QUADRANT LOCATION	DATE DRILLED
Paper ↓ X	DEANE SNYDER	BOISE, ID.	NEW WELL	IRRIGATION	29	8 (NE NE	PUMPING LEVEL 18'	6/30/86
X	WAYNE WYMER	6410 Butte St.	" "	"	50	30 NWSE	30-50 sand + gravel	6/10/87
(X)	ST. MARKS SCHOOL	7503 Northview	" "	"	420	NE SE	404-420 SAND GRAVEL	6/15/78
(X)	Flying Trailer Park	Ustick Rd			315	NE NE)		2/70
(X)	WAYNE DEWEY	3914 Buckingham PL. Boise			134	12 NE NE	134-136 Sand + Water	10/10/70
X	C.W. YARYAN	ASH PARK LANE, Boise Id.	NEW WELL	DOMESTIC	62	22 SE NE	5-28 gravel 32-42 gravel 28-32 coarse sand 42-62 Blue clay	10/28/77
(X)	BILL MEINERS	7717 Ustick	"	"	156	40 NW NE	40-52 gravel 52-60 Sand } WATER	5/6/71
X	TED MORGAN	CHRISTINE LN. Boise	"	"	42	15 SE NW	40-42 gravel 30-40 sand + gravel } water	11/5/71
(X)	RED STEER INC	Fairview	"	"	108	40 SW SW	30-48 sand gravel 48-58 heaving sand } water 58-96 - DIRTY SAND - No water 96-108 SAND + GRAVEL - water	8/2/72
(X)	RED STEER INC	FAIRVIEW	"	"	62	40 NW NW	45-50 sand 50-62 S+G } water	6/10/72
X	John Telden	8509 HOLBROOK	"	"	58	8 SW NW	7-37 S+G - water 37-55 - SANDY clay 55-58 clay } no water 58 - white sand - water	4/26/69
X	ORTHUN HEREIM	7829 Swift Ln. Boise	new well	Domestic	47	13 NNSE	20-45 - Gravel clay 45-47 Res gravel } water	9/21/74
	St. Marks School	7503 Northview	DEEPENED	irrigation	420	13 NE SE	400-420 sand - water	7/12/78
[illegible] ↓	NORMAN ADKINS	Boise Id		DOMESTIC	39	8	Cloverdale Subdivision Lot 3	1963
X	HOWARD JENKINS	Boise Id		DOMESTIC	39	STANDING water - 5'	W2 SWSW S.1 3N1E	1962
X	ALBERT PLACE	WEST OF CITY, BOISE		"	53	10	SW SW S.1 3N 1E	

Page 2	T3N R1E Section 1 NAME	ADDRESS	NATURE OF WORK	PROPOSED USE	TOTAL DEPTH	Static Water	QUADRANT LOCATION	DATE DRILLED
X	L.E. MARTIN	RT #2 Boise Id.		IRRIGATION	40'	16	E½ N.W. S.1 3N 1E	MARCH 1955
X	R.L. HEMILL	TRAILER PARK USTICK Rd.		DOMESTIC	142'	24	NE NW S.1. 3N 1E	6/15/58
X	RAY LEWIS	ASH LANE - NORTH OF USTICK		"	63½	22	NE¼, NW¼ S.1 3N 1E	4/24/63
	N.E + HAZEL DAVIS	RT 1, Boise Id		"	43½			5/24/63
X	K.S INVESTMENT CO.	GARDEN CITY ID.		"	41	12	S.W. N.E. S.1 3N 1E	10/16/62
X	DON ADAMS	CHRISTINE LN.		"	40	8	N.E. NE S.1 3N 1E	9/11/61
X	JOE MARTIN	KUNA Id.		"	43	8	N.E. N.E.	1956 ?
	ART SMITH	LINDA VISTA		"	44	6		10/17/63
	ALBERTSONS INC.	BOX 5359 COLE/FAIRVIEW? BOISE		INDUSTRY	60	10		1/31/59
	JIM HOWELL	517 No. 19th St.		Domestic	56	12		11/24/58
	LOUIE LARRIVAGA	501 Grove St.		"	94	7	1 mile west ¼ No Cole sch	5/27/58
	JIM LEONARD	SWIFT LANE		"	80	20		2/16/58
	MARTIN OLSEN	SWIFT LANE		"	83	14		2/22/58
	J.H. EDMUNDSON	NAMPA Id.		"	50	17	¼ mi S. on Ash park OFF USTICK	2/27/58
	JIM HOWELL	57 N. 19th St.		"	44	20	½ m S of Ustick on Ash park	4/25/58
X	FIDELITY HOLDING CO. AND BETTER HOMES INC	BOISE		"	653		SE SE S.1 3N 1E	7/12/54
	FAIRMONT JR. HIGH	BOISE		IRRIGATION	227			8/4/64

Page 3	NAME	ADDRESS	NATURE OF WORK	PROPOSED USE	Total DEPTH	STATIC Water	QUADRANT LOCATION	DATE DRILLED
	T3N R1E SECTION1							
	FAIRMONT SCHOOL	SWIMMING POOL	NEW WELL	swimming pool	255	16		2/25/78
X	OWEN WALTON	7923 Ustick		DOMESTIC	114	12	NE NE S.1 3N 1E	4/27/63
	MIKE MATZEK	2204 Parkside, Boise	NEW WELL	"	40	13	6-40 gravel & water	12/12/86
X	KING OF GLORY LUTHERN CHURCH	FAIRVIEW AV. BOISE			323		SE SW. S1 3N 1E	8/20/65
X	WADE JOB	SWIFT LANE		DOMESTIC	165	12	SE. SE.	10/15/62
X	VERNON EASON	Boise Id		Irrigation	32	16' to standing wtr.	WESTLAND ACRES LOT 2 Block 10 SE SE.	5/10/57
X	MERLE MILLER			DOMESTIC	43	9' to standing water	SW SE	5/21/56
X	E.M. HOYT	Clyde Id.		"	47		SE½ SW SE S.1. 3N 1E	12/16/53
	T3N R1E SECTION2							
paper Logs ↓ X	C.M WEBER	BOISE Id	NEW WELL	DOMESTIC	37	11 SWNE	4-39 gravel & water	4/16/80
X	John Card	2719 N. KIMBALL	"	"	35½	8	(SE SW) 15-32 caving gravel-water 32-36 clay - no water 36½ S+C - water	6/26/79
copy X	DON ANDERSON	2805 DALTON BOISE	"	"	137	12-	(NW NE)	4/28/87
copy X	BOISE Water Corp	Ball Hai WELL	"	Municipal	880		(SE NE)	10/26/72
X	GUY JAMES	7000 McGlochlin	"	Domestic	39½	10	SW NW (KILDGER #2 SUBDIVISION)	5/24/84
	GARY HARDING	915 S. Curtis	"	"	110	6	LOT 19 Block 1 (HOMEACRES SUB NO. 15	Feb 71

PAGE 4	T3N R1E section 2 NAME	ADDRESS	Nature of work	Proposed use	Total Depth	Static Water	QUADRANT LOCATION	DATE DRILLED
X	Herb Brice	Meridian Rd	new well	Domestic	99	10	NE SE	12/5/78
X	EC JAVAUX	N. END of Hampton Rd	"	"	46	7	NW SW	3/2/70
X	MILLS MILLER	DALTON LANE	"	"	43	6	NE NE	6/7/71
(X)	MRS RUBENO	Granger off 5 mi.	"	"	120	4	SW NW	7/11/70
(X	OB WELCH	Kimball at Ustick	"	"	105	8	NW NE	12/13/69
(X	MIKE WILMOT	1816 Hampton	"	"	90	15	SE SW	2/10/72
(x)	Jim Hall	overland	"	"	110	36	80-90 gravel-water (NE NE)	3/12/78
(x)	S Choens Tri Sales	5 mile & Fairview	"	"	177	17	SW SW	3/3/73
x	Ray Gray	9515 Sunflower Ln.	"	irrigation	34	5 ½	NE SW	9/15/80
X	SHINE HIPSLEY	Boise	"	Domestic	41	22	22-32 gravel-water SW NW	2/17/87
MICROFICHE ↓ (X	PETE FRONDERTHALER	Kimbal St.	"		65	Standing 10	SW NE	3/68
(X)	GARY MOYNE	Kimbal ST.	"		110	" 5	NE NE	6/68
(X)	GLEN SHEERS	N Maple Grove & Cory Ln	"	domestic	100	" 3	NE NE	9/3/65
(X)	ED BERUCS Sr?	granger off 5 mile Rd	"	"	126	" 15	SW NW	7/16/68
	Travis DUNCAN	3010 LINDA VISTA	"	"	92	Static 11	Proposed Trailer Park	3/5/70
(x)	Schroder	Kimball between Cory & Ustick	"	"	76	8	NW NE	8/14/69
	Burt Smith (Builder	WOLFE ST.		"	41	8		12/18/63

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	Name	Address	Notice/Work	Proposed Use	Total Depth	Static Water	Quadrant Location	Date Drilled
	Frank Miller	2510 N. 29 Boise		Domestic	75	standing 27	¼mi East 5 Mile	5/26/56
(X)	Bryce Peterson	4655 Shannon Ln Boise	new well	"	116	" 20'	SW. SE	1/10/66
(X)	Burt Smith		"		101	4	SW SE	7/2/67
(X)	Burt Smith		"	"	80	6	SW SE	1/67
(X)	ED Bews (Builder)		"		120	3	SW SE	7/27/67
(X)	Ruth ?	9751 Cory Ln	"	"	130	3	SW NE	1968
X	Carrell Copple	42 Kimble St.		"	41	19	NE NE	4/3/62
X	G.M. Madison	Kimball St. RT 2		"	50	5	NE NE	8/25/61
X	Carl Tyger	RD 2 Boise Rd		"	161	7	NE NE	3/12/59
(X)	John Waite	R #1 Boise Rd		"	146	ground level	Lot 1 NE quarter of Acreages sub #18	9/6/56
	Ed Bews 31		New well		130	10		7/66
(X)	" "		New well		83	20	NE NE	3/67
X	Roy Eshelman	RD 2 Boise		Domestic	41	6	NE SW	8/10/62
X	Larry Sparks	R #2 Boise		"	38	12	E½ SW	4/20/59
(X)	Alfred T. Sall	9905 Granger Way	New well	"	80	10	SE NW	5/24/67
X	John Reardon	RD 2 Boise		"	59	4	NW NW	6/6/64
(X)	Ralph Shoemaker	Franklin Rd		"	170	31	NW quarter	3/2/64

Map	T3N R1E S2 Name	Address	Nature of work	Proposed Use	Total Depth	Static Water	Quadrant Location	Date Drilled
⊗	Uncle Pete	Boise Rd		Domestic	115	8	SE NW	1/22/63
×	Lewis Howard	1318 Longmont St		"	40	7	SE SE	10/11/54
×	Richard Halstead	Rt #2		"	41	10	S½ NE SE	2/17/59
×	AJ COON	Rt 2 Halstead Dr.		"	38	4'10"	S½ NE SE	10/5/59
×	Bert Leese	Rt 2		"	40	8	SE SE	9/8/61
×	Carl Tygar	Halstead St.		"	40	10	SE SE	3/18/63
⊗	IKE WRIGHT	Boise		"	270		SW SW	
⊗	Bert Smith			"	70	4	SE SE	4/64
×	Bert Smith			"	44	8	SE SE	11/21/63
⊗	Bert Smith		New Well	"	77	6	SW SE	4/66
⊗	"		New Well	"	115	6	SW SE	3/11/66
⊗	"		"	"	88	6	SW SE	3/7/66
⊗	ED BEW		"	"	115	6	SW SE	4/2/66
⊗	ED BEWS		"	"	80	4	SW SE	11/15/65
⊗	" "		"	"	118	6	SW SE	3/26/66
⊗	" "		"	"	109	4	SW SE	7/31/65
⊗	JIM SHAW	Sunflower Ln	"	"	77	5	SE NE	12/9/76

Map	T3N R1E S2 Name	Address	Nature of work	Proposed Use	Total Depth	Static water	QUADRANT LOCATION	Date Drilled
X	Albert Blaser	3710 Tamrock St.	New	Domestic	45	13	SE SW	1/9/76
X	Ada Electric	805 Park Blvd.	"	"	41	12	SW SW	2/12/76
X	Pickup Truck Lease	Inc. Box 7681 Boise	"	Industrial	232	1	SW SW	5/30/73
X	Burt Smith owner	lease		Domestic	42	8	SE SE	3/14/64
X	Dale Smith		Well	"	100	68	SE NW	9/1/65
X	Rick Kirk	2728 Dalton Ln.	"	"	184	10	NE NE	10/25/76
X	Bill Dokken	2620 N. Mitchell	"	"	158	6.0	SW NE	3/25
X	James ?		"	"	122	20	SW NE	2/12/77
X	George ?	644 Halstead	"	"	240	10	SW SE	9/15/77

T3N R1E S12

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	Name	Address	Nature of work	Proposed Use	Total Depth	Static water	Quadrant Location	Date Drilled
paper copy X	Richard Bentley	915 Imperial Way	New Well	Domestic	55	15	SW NE 6-55 Sand & gravel-water	4/8/85
copy X	Roy Anderson	645 W Pine Meridian	"	irrigation	43	10	NW SE	5/31/79
X	Stan Kramer		"	Domestic	36 1/2	14	NW NW	11/6/73
	Bishoff	(1200?) Maple Grove	"	"	55	4		
(X)	Helmut Yorke	8924 Franklin Boise	Replacement	"	82	9	SW SW	5/20/79
X	Robert Ridinger	Imperial Way	New Well	"	55	6	SE NE	12/15/70
X	Annibale Denning	903 Imperial Way	"	"	48	32	NE SE 45-48 water sand	1/17/77
(X)	Jack Vincent	6934 Brentwood, Boise	"	Municipal	124	10	SW SW vet clinic	11/6/71 CONVERTED TO BWC WATER
microfiche X	ALBERT BLASER	Imperial Acres Subdiv		Domestic	36 1/2	6	SE NE	2/19/64
(X)	Washoe Trailer Co.	Maple Grove & Franklin		Fire Protection	583	FLOW	SW SW	2/29/64
(X)	Tom Brown	6001 Fairview	New well	domestic	89	3	SW SE	6/9/66
X	Jerry Evangelho	2700 Pierce Dr. (7800?)	"	"	50	10	SW NE	9/3/69
	Morehouse Elmer Ball (builder) Pierce St			"	42	6		9/27/63
	Miller "LePape Builder" 715 Brookhaven				43	6		9/14/63
	Bert Leese	Rt 2		"	40	9	1 mi west of cole school	4/13/56
	SHoemaker Trucking	Boise Rd		Office	110	6	East from Maple Grove 999 ft.	3/14/65
X	Elmer Ball		New Well	domestic	41	6	SE NE	4/10/66

POD	T3N R1E S12 NAME	Address	New/Deepened	Proposed Use	Total Depth	Static Water	QUADRANT LOCATION	Date drilled
X	Wes Draper	Ash Park Ln	New	Dom	47	6	NW SE	1968
⊗	Nic Lopez	7961 Fairview	"	"	156	10	NE NE	5/17/67
⊗	Lee Clark	7905 Westview Blvd		"	68	8	NE NE	10/21/62
X	Burd Hegstrom	5509 Lynwood Pl.		"	41	5	SW NE	7/31/63 CONVERTED TO DWR
X	Ed Cook	4367 Linda Vista	New		48	7	SE NE	1/27/66
⊗	Magna Pkg Hdg Co.	Orchard Ave		Domestic	172	5	SE SW	6/20/60
⊗	Marvin Jensen	410 N Maple Grove	New	"	262	4	SW NW	6/21/79
⊗	Silver Sage Girl Scout Council	1413 Etheridge Ln.	"	"	79	15	SW NE	12/21/76
⊗	Harvey Stone	et 2			147		NW NW	
	T3N R1E Sec 11							
"P" Log ⊗	Kayle Hobbs		Well	Domestic	180	1	SE NE	11/7/77
⊗	Circle K Food Store		New	Domestic commercial	140	11	NW NW	2/12/73
X	Sterling Landscape	Boise	"	irrigation	40	8	NE SW	2/6/78
⊗	Robert Hopkins	Fairview Ave	"	Domestic	200	½	NW NW	10/17/78
⊗	Jack Rancher	Box 7921 Boise	Deepened	"	120	4	SE SE	11/28/78
X	Bob Asbury	620 Kimball	New	"	28	15	SW SE	4/3/72
X	H&E Construction	Box 756 Boise ID	"	"	42	8	NW NW	5/25/72

Pg 10	T3N R1E Sec 11 Name	Address	Nature of work	Proposed Use	Total depth	Static water	Quadrant location	Date drilled
⊗	Leonard Johnson	9975 Fairview	New	Industrial	125	0	NE NW	5/24/72
⊗	CHARLIE LIVES	1501 Hervey St.	"	Domestic	62	12	SW SW	8/25/69
X	Dean Patterson		"	"	48	4	NW NW	4/19/72
X	R.O. Steele	1220 N Mitchell Boise	Replacement	"	33	7	NW NE	3/17/72
⊗	Doug Gaskell	9161 Dalton Place	New	"	72	8	SW NE	10/21/82 CONVERTED TO SWR. W
X	Bill Crist	1180 Hampton Rd	"	"	28	11	NE SW	4/26/83
⊗	Hank Houst	922 Hampter Rd	"	"	75	7	NW SW	4/23/82
X	Dick John			"	54	6	NW SW	8/21/68
⊗	BOB Vincent	Boise Rd	New	"	80	½	NW NW	9/9/69
⊗	Rodgers Trailer Ct.	Mitchel off Fairview	"	"	185	2	NE NW	8/29/69
	L.E. Holderness	Rt 2		Domestic/Subdivision	218	5	Lot 1 Block 1 Springa Mobile Park	4/65
	Floyd Eshelman	Meridian Id		Domestic	38½	8	1½m NW ¼m N of Cole	Abd 4/26/66
⊗	LE Holderness	Rt 2		"	97	5	NW NE	7/11/63
X	G.E. Hurrie	1011 Kimball Rd 4	Replacement	"	40	12	NE	7/2/67
X	LC Smith	3rd House behind Silver Spur		"	35	4	NE NW	11/8/63
⊗	James Howell	517 N 19th Boise		"	67	2	NW SW	10/5/63
	Benson	Overland Rd.	New	"	128	32		5/4/67
⊗	John Benedic	861 No. Michel St.	"	"	89	4	E½ NW	7/19/71

PAGE 11	Name	Address	Nature of Work	Proposed Use	Total Depth	Static Water	QUADRANT LOCATION	Date Drilled
	T3N R1E Sec 11							
X	Phillip Benedict		New	Domestic	198	2	E½ NW	6/16/77
X	Sterling Landscape	9707 Fairview	"	"	160	1'8"	NE NE	1/18/75
X	Bruce Sackman	1048 N. Dalton	"	Irrigation	29	10	NE NE 12-29 Sand & Gravel water	7/28/86
	T3N R1E Sec 13							
Paper Log X	JIM Hessing	Cole Rd	Deepened	Irrigation	111	12'5"	NE NE	4/28/86
X	Al Minton-Rocky Mtn Development Co	One Capitol Center Boise	New	Domestic	73½	46	SW SE	12/4/77
(copy) X	Vern Barnett	8119 Kingslington	"	"	99	22	NW NE	3/24/76
X	CHARLES Transtrum	Sorenson Ln.	"	"	85	25	SW SE	11/17/77
(copy) X	Dewayne Cope		Deepened	"	145	1	NW SE	10/14/85
X	Bill Cates	4200 Hillcrest	New	"	122	50	SW SE	7/22/73
	Headrick	N. Orchard	"	"	106	51		10/8/70
X	Burton Smith	Boise	"	Industrial	71	32	SW SE	8/30/72
X	Don Wilson	7515 Cameo	"	Domestic	170	50	NW NE	5/25/71 CONVERTED 3WC WAT
X	MAX YEEEINGTON	350 S. Maple Grove	"	"	104	37	SE NW	12/7/71
(copy) X	GUS Blaser	5821 Randolph Dr.	"	"	129	60	SW NW	6/1/82
Microfiche ↓ X	Intermountain Gas	Boise		Dom, Fire, Irrig.	875	41	SE NE	10/14/68
X	RANCHERO MOTOR INN	5000 overland		Dom. Irrig	160	50	SW SE	5/9/69

MJ2	T3N R1E Sec13 Name	Address	Notice/work	proposed use	Total Depth	Static water	QUADRANT LOCATION	Date Drilled
⊗	Yerrington	Maple Grove	abandoned		91	43	NW NW	3/67
	Anzuilio Echavarria	7524 Cassia St.	New	Domestic	205	40		11/15/66
⊗	American Realty Co.	923 Main St.	Deepened	Commercial	96	6	NW NE	5/24/68
	Marvin Wilder	Boise		Domestic	110	51		1957
	Robt. Jones	RD #3		"	65	38	Randall Acres Sub 12 block 3 Lot 10	12/17/56
	Randall Realty Co	923 Main St		Housing project	124	5	1 mi S ½ mi West Cole & Ada	9/14/56
⊗	"	"		Domestic	360	48	NW SE	6/23/60
⊗	Alvin Sigety	5124 Grover		"	265	50	SE SE	2/23/61
⊗	Robert Brockman	Overland Rd		"	64	31	SE NE	8/23/63
⊗	Gordon Grigg	Overland Rd		"	76	21	SE NE	10/24/63
	Randall Realty	923 Main St		"	71	35	Randall Acres Sub 12 Block 3 Lot 12	5/10/61
	Joe Baker	RD 4		"	97	40	" Block 4 Lot 1	11/21/58
⊗	Hessing Chrysler		New	Dom, Municipal	107	11	NE NE	9/77
⊗	Everett Herriss	400 E 36th Boise	"	Irrigation	86	23	SE SW?	5/22/77
⊗	Pleasant Valley Builders	1112 Aldape Cove	"	Domestic	95	25	SW SW	1/17/77
⊗	" "	" "	"	"	68	30	SW SW	5/1/75
⊗	Crawford Const.	Overland & Freeway	"	"	130	55	SE SE	10/4/75
⊗	Archer Stevenson	Rt 2 Meridian	"	"	74	7	SW NE	4/18/74

T3N R1E Sec 13 Name	Address	Nature of work	Proposed Use	Total Depth	Static Water	QUADRANT LOCATION	Date Drilled
⊗ Fa. Shuey	Fairview Ave		Domestic	110		SE SE	11/5/53
T3N R1E Sec 14							
Boise Water Corp	8150 W. Victory	New	Municipal	675	37	NE NE	9/21/81
KRIS GURLEY	Boise	"	Domestic	79	30	SE NE	8/12/86
DOUG Jayo	9350 Bienapfl	"	"	98 ½	39	W½ NE	1/19/80
WW Hedrick	1154 N. Orchard	"	"	154	32	SW NE	2/25/74
Romney	Franklin Rd	"	Irrig	112	44	NW NE	7/14/84
Jones Construction	531 White Cloud Boise	New	Domestic	64	20	SW NE	8/14/37
WW Hedrick	1154 N. Orchard	"	"	118	35	SW NE	8/30/73
Jim Moffett		"	"	94	30	SW NE	7/26/73
Charles Wake	1841 Broadmoor Boise	"	"	81	40 ½	NE NE	1/29/78
Boyd Baxter	9615 Franklin	"	"	93	50	NW NE	4/26/71
Young + Hammer		"	"	104	35	NE NE	3/73
Al Smart	402 Bitterroot, Boise	"	"	65	15	NW NE	5/17/77
Curtis Park Court		"	"	106	56	NW NE	4/23/85
Mark Kirkpatrick	Box 4051 Boise	"		150	33	SW NE	11/1/68
Jim Montgomery	Boise	"	Domestic	140	40	SW NE	1/29/78
PAT CROSS	Franklin	"	"	202	20	SE NE	6/10/78
Ryder Trailer Court	Franklin Rd & Cloverland		"	120	37	NE NE	4/1/70
JAMES ROARK	2900 TAMARACK	"	"	178	42	SW NE	3/29/73

USE TYPEWRITER OR BALL POINT PEN

Department of Water Resources

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name C. W. Yaryan

Address Ash Park Lane, Boise, Idaho

Owner's Permit No.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 6 inches Total depth 62 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	5 inches	+1 feet	59 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation inches by inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name

Type Model No.

Diameter Slot size Set from feet to feet

Diameter Slot size Set from feet to feet

Gravel packed? ☐ Yes ☒ No Size of gravel

Placed from feet to feet

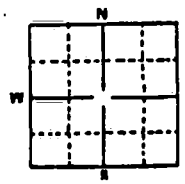
Surface seal depth 28 Material used in seal ☐ Cement grout ☐ Puddling clay ☒ Well cuttings

Sealing procedure used ☐ Slurry pit ☐ Temporary surface casing ☒ Overbore to seal depth

6. LOCATION OF WELL

63

Sketch map location must agree with written location.



Subdivision Name none

Lot No. Block No.

County Ada

SE ¼ NE ¼ Sec. 1, T. 3N, N/S, R. 1E, E/W

USE ADDITIONAL SHEET IF NECESSARY

7. WATER LEVEL

Static water level 22 feet below land surface

Flowing? ☐ Yes ☒ No G.P.M. flow

Temperature ° F. Quality

Artesian closed-in pressure p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Other compressor

Discharge G.P.M.	Draw Down	Hours Pumped
20	7'	3

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	5	Top soil		X
	5	28	Gravel	X	
	28	32	Coarse sand	X	
	32	42	Gravel	X	
	42	62	Brown clay		X
	Bottom coarse sand			X	

10.

Work started 10/25/77 finished 10/28/77

11. DRILLERS CERTIFICATION

Firm Name L.R.Ilunsperger Well Drlg. Firm No. 192

Address 6065 Oreana Dr., Boise Date 10/31/77

Signed by (Firm Official)

and

(Operator)

Form 238-7
9/82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Don Anderton
Address 2805 Fallon, Boise
Owner's Permit No. _____

2. NATURE OF WORK

☑ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☑ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☑ Rotary ☑ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☑ Steel ☐ Concrete ☐ Other PVC

Thickness	Diameter	From	To
.250 inches	6 11 inches	+ 1 feet	79 feet
.188 inches	4½" inches	77 feet	137 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

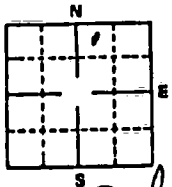
Was casing drive shoe used? ☑ Yes ☐ No
Was a packer or seal used? ☐ Yes ☑ No
Perforated? ☑ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☐ Torch Saw
Size of perforation _____ inches by _____ inches

Number	From	To
522 perforations	77 feet	136 feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☑ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____
Placed from ___ feet to ___ feet
Surface seal depth 5ft Material used in seal: ☐ Cement grout ☐ Bentonite ☑ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☑ Overbore to seal depth
Method of joining casing: ☐ Threaded ☑ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County Ada
NW ¼ NE ¼ Sec. 2 T. 3 N/S, R. 1 E/W.

7. WATER LEVEL

Static water level 12 feet below land surface.
Flowing? ☐ Yes ☑ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ___ °F. Quality _____
Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Bailer ☑ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
25	37	2

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
12"	0	1	Brown topsoil		✓
9"	1	6	Brown clay		✓
9"	6	18	Brown gravel + sand		✓
9"	18	54	Brown gravel + sand	✓	
6"	54	67	Brown clay		✓
6"	67	73	Brown + White coarse sand	✓	
6"	73	86	Brown clay		✓
6"	86	88	Brown clay crack	✓	
6"	88	94	Brown clay		✓
6"	94	95	Brown clay crack	✓	
6"	95	115	Brown clay		✓
6"	115	130	Blue clay		✓
6"	130	134	Blue clay crack	✓	
6"	134	140	Blue clay		✓

RECEIVED
JUL 07 1987
Department of Water Resources
RECEIVED
JUL 10 1987
Department of Water Resources
Western Regional Office

10. Work started 4/24/87 finished 4/28/87

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name SOS WELLDRILLING Firm No. 212
Address 4145 N. Blackcat Road Meridian Id - 83642 Date 6-16-87
Signed by (Firm Official) Frank Skinner
and
(Operator) Frank Skinner

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

BALL POINT PEN

Department of Water Administration

WELL DRILLER'S REPOR

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Boise Water Corp. (Bali Hai Well)

Address Boise, Idaho

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test

☒ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

Reverse

☐ Cable ☒ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 24" inches Total depth 880 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.375 inches	16" inches	+18 feet	347 ✗ feet
.375 inches	12" inches	356 feet	359 feet
.375 inches	12" inches	373 feet	493 feet
.375 inches	12" inches	497 feet	504 feet
.375 inches	12" inches	544 feet	568 feet

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☐ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Johnson

Type Stainless Steel Model No. _____

Diameter 12 Slot size 60 Set from 347 feet to 356 feet

Diameter 12 Slot size 60 Set from 359 feet to 373 feet

Gravel packed? ☒ Yes ☐ No Size of gravel XXXX ¼-

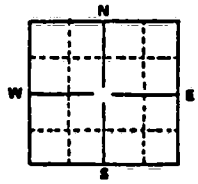
Placed from 0 feet to 602 feet

Surface seal? ☒ Yes ☐ No To what depth 120 feet

Material used in seal ☒ Cement grout ☐ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



County Ada

SE ¼ NE ¼ Sec. 2 T. 3 N/S, R. 1 E/W

7. WATER LEVEL

Static water level _____ feet below land surface

Flowing? ☐ Yes ☐ No G.P.M. flow _____

Temperature _____° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Drew Down	Hours Pumped
3268	210 ft	10

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	0	4	Top Soil		
	4	5	Hardpan		
	5	7	Soil		
	7	9	Gravel & Sand		
	9	26	Gravel, clay & some coarse sand		
	26	30	Lrg Gravel & Crs Sand		
	30	32	Lrg Gravel & Crs Sand		
	32	39	Gravel & Fine Sand		
	39	40	☒ Gravel & Sandy Clay		
	40	45	Tan Clay Sandy Textured		
	45	48	Fine Brown Sand		
	48	51	Clay Sandy Textured		
	51	65	Brown Sand		
	65	103	Tan Sandy Clay		
	103	110	Tan Clay		
	110	120	Tan Sandy Clay		
	120	140	Tan Clay with Iron Stain		
	140	160	Blue Gray Clay		
	160	168	Blue Gray Sandy Clay		
	168	216	Blue Gray Clay		
	216	221	Gray Sand Very small gravel		
	221	229	Blue gray sand traces of wood		
	229	231	Blue Clay		
	231	240	Blue Green Clay		
	240	249	Green Clay		
	249	251	Gray Sandy Clay		
	251	252	Fine Gray Sand		
	252	255	Blue Clay		
	255	256	Fine Brown Sand		
	256	257	Blue Clay		
	257	267	Fine Brown Sand		
	267	270	Tan Clay & Fine Brown Sand		
	270	272	Blue Clay		
	272	273	Fine Gray Sand		
	273	275	Blue Clay		
	275	277	Fine Gray Sand		
	277	283	Blue Clay		
	283	284	Blue Gray Sand		
	284	289	Blue Clay		

10. Work started 15 Aug 1972 finished 28 Oct 1972

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

Pete Cove Drilling Company 211
Driller's or Firm's Name Number

P.O. Box 561 - Meridian, Idaho 83642
Address

Signed By _____ Date _____

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

...RITER OR ...OINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name _____

Address _____

Owner's Permit No. _____

2. NATURE OF WORK

☐ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

_____

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test

☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☐ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole _____ inches Total depth _____ feet

Casing schedule: ☐ Steel ☐ Concrete

Thickness	Diameter	From	To
.375 inches	12" inches	X 576 feet	587 feet
.375 inches	12" inches	592 feet	602 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☐ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☐ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter 12 Slot size 60 Set from 493 feet to 497 feet

Diameter 12 Slot size 60 Set from 504 feet to 544 feet

Gravel packed? ☐ Yes ☐ No Size of gravel _____

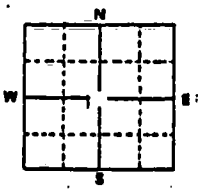
Placed from _____ feet to _____ feet

Surface seal? ☐ Yes ☐ No To what depth _____ feet

Material used in seal ☐ Cement grout ☐ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



County Ada

SE ¼ NE ¼ Sec. 2 T. 3 N/S, R. 1 E/W

7. WATER LEVEL

Static water level _____ feet below land surface

Flowing? ☐ Yes ☐ No G.P.M. flow _____

Temperature _____° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
320	210	10

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	289	290	Gray Sand		
	290	295	Blue Clay-dry		
	295	304	Fine Gray Sand X		
	304	337	Blue Clay		
	337	337½	Blue Gray Sand		
	337½	347	Blue Clay		
	347	355	Blue Gray Sand		
	355	359	Blue Clay		
	359	371	Gray Sand		
	371	373	Gray sand some gravel		
	373	414	Blue Clay		
	414	415	Gray Sand		
	415	418	Gray Clay		
	418	420	Fine Gray Sand		
	420	493	Blue Clay		
	493	496	Gray Sand Some Wood		
	496	499	Soft Sandy Blue Clay		
	499	501	Gray Sand		
	501	504	Blue Gray Clay		
	504	530	Fine Gray Sand		
	530	534	Gray Sand streaks of clay		
	534	544	Gray Sand		
	544	551	Clay		
	551	555	Sand		
	555	568	Clay		
	568	575	Fine Gray Sand		
	575	576	Shaley Clay		
	576	577	Soft Clay		
	577	582	Shaley Clay		
	582	586	Sandy Clay		
	586	587	Sand		
	587	588	Sandy Clay		
	588	592	Sand		
	592	600	Clay		
	600	601	Fine Sand		
	601	610	Clay		
	610	630	Sandy Textured Clay		

10.

Work started _____ finished _____

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

_____
Driller's or Firm's Name Number

_____
Address

_____
Signed By Date

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

JOINT PEN

Department of Water Administration

WELL DRILLER'S REPO

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name _____

Address _____

Owner's Permit No. _____

2. NATURE OF WORK

☐ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

_____

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test

☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☐ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole _____ inches Total depth _____ feet

Casing schedule: ☐ Steel ☐ Concrete

Thickness	Diameter	From	To
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☐ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☐ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter 12 Slot size 60 Set from 568 feet to 576 feet

Diameter 12 Slot size 60 Set from 587 feet to 592 feet

Gravel packed? ☐ Yes ☐ No Size of gravel _____

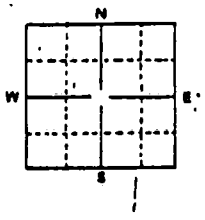
Placed from _____ feet to _____ feet

Surface seal? ☐ Yes ☐ No To what depth _____ feet

Material used in seal ☐ Cement grout ☐ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



County Cecil

SE ¼ NE ¼ Sec. 2, T. 3 N/S, R. 1 E/W

7. WATER LEVEL

Static water level _____ feet below land surface.

Flowing? ☐ Yes ☐ No G.P.M. flow _____.

Temperature _____ ° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
320	210	4

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	630	641	Blue Sandy Clay		
	641	774	Shaley Dry Green Clay		
	774	775	Gray White Silica		
	775	850	Shaley Dry Green Clay		
	850	854	Clay		
	854	858	Sand & Green Clay Layers		
	858	860	Green Clay		
	860	870	Silty Clay		
	870	880	Clay		

10.

Work started _____ finished _____

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

_____

Driller's or Firm's Name Number

_____

Address

_____

Signed By Date

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

Form 238-7
1/78

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Doug Gaskell

Address 9101 Dalton Place
Boise, Idaho 83704

Owner's Permit No.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other ______ (specify type)

4. METHOD DRILLED

☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☒ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other

Thickness		Diameter		From		To	
.250	inches	6	inches	+ 1	feet	72	feet
	inches		inches		feet		feet
	inches		inches		feet		feet
	inches		inches		feet		feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ______ inches by ______ inches

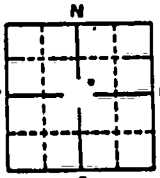
Number		From		To	
	perforations		feet		feet
	perforations		feet		feet
	perforations		feet		feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name
Type ______ Model No.
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel
Placed from ______ feet to ______ feet
Surface seal depth 20' Material used in seal: ☐ Cement grout ☒ Puddling clay ☐ ~~Well cuttings~~
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port

6. LOCATION OF WELL

Sketch map location must agree with written location.

N



W E S

Subdivision Name Brookside Place

Lot No. 8 Block No.

County

SW ¼ NE ¼ Sec. 11, T. 3 N/S, R. 1 E/W

7. WATER LEVEL

Static water level 8 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure ______ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature 52 °F. Quality Good

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
15	14 feet	6

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
8	0	5	Top Soil		X
	5	20	Sand & Gravel		X
6	20	35	Sand & Gravel	X	
	35	51	Coarse Sand	X	
	51	65	Sandy Clay		X
	65	67	Fine Sand	X	
	67	72	Sandy Clay		X
	72	—	Coarse Sand	X	

RECEIVED
JUN 7 1984
Department of Water Resources
Western Regional Office

10. Work started 10-11-82 finished 10-21-82

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Crowse Well Dr. Firm No. 404

Address 2271 Dalton, Boise Date 10-23-83

Signed by (Firm Official) Hoy E. Crowse

and

(Operator)

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

USE TYPEWRITER OR BALL POINT PEN

Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

1. WELL OWNER

Name: Jack Vincent

Address: 6934 Brentwood - Boise

Owner's Permit No. [illegible]

2. NATURE OF WORK

☑ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test [illegible]

☑ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☑ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 5 inches Total depth ____ feet

Casing schedule: ☑ Steel ☐ Concrete

Thickness	Diameter	From	To
[illegible] inches	5 inches	[illegible] feet	124 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was a packer or seal used? ☑ Yes ☐ No

Perforated? ☐ Yes ☑ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation ____ inches by ____ inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☑ Yes ☐ No

Manufacturer's name Halston

Type ____ Model No. ____

Diameter 5 Slot size 30 Set from 124 feet to 131 feet

Diameter ____ Slot size ____ Set from ____ feet to ____ feet

Gravel packed? ☐ Yes ☑ No, Size of gravel ____

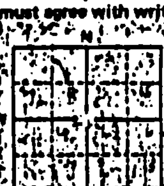
Placed from ____ feet to ____ feet

Surface seal? ☑ Yes ☐ No To what depth 90 feet

Material used in seal ☐ Cement grout ☑ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



County Ada

SW¼ SW¼ Sec. 12 T. 3 N/S R. 2 E/W

7. WATER LEVEL

Static water level 10 feet below land surface

Flowing? ☐ Yes ☑ No G.P.M. flow ____

Temperature ____ F. Quality ____

Artesian closed-in pressure ____ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☑ Other Air Compress

Discharge G.P.M.	Draw Down	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	5	CLAY		/
6	5	42	Gravel	/	
6	42	80	Sand	/	
6	80	96	Yellow Clay		/
6	96	97	Yellow Sand	/	
6	97	115	Clay Fine Sand	/	
6	115		Corse Sand	/	
6					
6					
6					

10.

Work started Oct. 13 71 finished Nov. 6, 71

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

Rex Engleman 47

Driller's or Firm's Name Number

1309 Rand St

Address

Signed By [illegible] Date Oct 24 [illegible]

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

USE TYPEWRITER OR BALLPOINT PEN

DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Hessing Leasing

Address

Owner's Permit No.

2. NATURE OF WORK

☒ New well ☐ Deepened ☒ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☒ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 8 inches Total depth 69 feet

Casing schedule: ☐ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	8 inches	1 feet	54 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☒ Yes ☐ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation ____ inches by ____ inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Cook

Type 304 Model No.

Diameter 8 Slot size .030 Set from 59 feet to 64 feet

Diameter 8 Slot size .025 Set from 64 feet to 69 feet

Gravel packed? ☐ Yes ☒ No Size of gravel

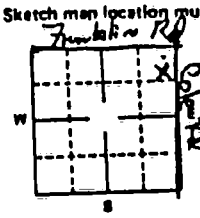
Placed from feet to feet

Surface seal depth 18 Material used in seal: ☐ Cement grout ☐ Puddling clay ☒ Well cuttings

Sealing procedure used: ☐ Slurry pit ☐ Temporary surface casing ☒ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name

Lot No. Block No.

County Ada

NE ¼ NE ¼ Sec. 13, T. 3 N/S, R. 1 E/W

7. WATER LEVEL

Static water level 18 feet below land surface.

Flowing? ☐ Yes ☒ No G.P.M. flow

Temperature °F. Quality

Artesian closed-in pressure p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Other Air Compressor

Discharge G.P.M.	Drawdown	Hours Pumped
100 GPM		1 HR

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
8	0	5	Top Soil		X
	5	18	Cemented Gravel		X
	18	25	Gravel	X	
	25	33	Sand & Gravel	X	
	33	39	Sandy Clay		X
	39	46	Course Sand	X	
	46	52	Red Sand	X	
	52	69	Course Sand	X	

RECEIVED
APR 23 1985
Department of Water Resources
Western Regional Office

RECEIVED
APR 23 1985
Department of Water Resources

10.

Work started 27 May 82 finished 1 June 82

11. DRILLERS CERTIFICATION

Firm Name D & W Phipps Firm No. 332

Address 2068 Bonita Date 5 June 82

Signed by (Firm Official) D & W Phipps

and

(Operator)

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

1/78

DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Boise Water Corp.

Address 8150 W. Victory

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☒ Municipal

☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary

☒ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.375 inches	18 inches	+ 2 feet	349 feet
.250 inches	10 inches	318'4" feet	619'2" feet
.250 inches	10 inches	670 feet	675 feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☒ Yes ☐ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Johnson

Type stainless steel Model No. 304

Diameter 10 Slot size 30 Set from 619'2" feet to 670 feet

Diameter ___ Slot size ___ Set from ___ feet to ___ feet

Gravel packed? ☒ Yes ☐ No ☐ Size of gravel #8 sand

Placed from 318'4" feet to 675 feet

Surface seal depth 24 Material used in seal: ☒ Cement grout ☐ Puddling clay ☐ Well cuttings

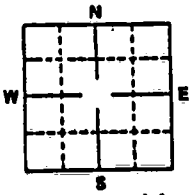
Sealing procedure used: ☐ Slurry pit ☒ Temp. surface casing ☐ Overbore to seal depth

Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata

Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name Maple Hills

Lot No. 9 Block No. 1

County Ada

N/E N/E ¼ ¼ Sec. 14, T. 3 N/S R. 1 E/W

7. WATER LEVEL

Static water level 37 feet below land surface.

Flowing? ☐ Yes ☒ No G.P.M. flow _____

Artesian closed-in pressure _____ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

Temperature ____ °F. Quality _____

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
760	187	2
860	212	2
953	237	2
1023	252	2

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
18	0	1	gravel		X
	1	3	topsoil & brown clay		X
	3	65	cemented sand & gravel streaks of clay		X
	65	78	brown clay		X
	78	214	streaks of cemented sand & brown clay		X
	214	275	blue clay		X
	275	320	streaks of brown clay & fine muddy sand	X	
	320	328	sticky brown clay		X
	328	365	blue clay		X
	365	380	cemented blue sand		X
	380	460	blue clay		X
	460	468	streaks of brown clay & cemented sand		X
	468	615	blue clay		X
	615	620	streaks of blue clay & fine muddy sand	X	
	620	628	fine blue sand	X	
	628	630	sandy blue clay		X
	630	670	fine to medium size blue sand	X	
	670	675	blue clay		X
			Packer assemble set from 311' to 318'4"		

RECEIVED
OCT 21 1981
Department of Water Resources
Western Regional Office

10.

Work started 6/18/81 finished 9/21/81

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name W.E. Stevens & Sons Firm No. 153

Address 3709 Hawthorne Dr. Date 10/10/81

Signed by (Firm Official) _____

and

(Operator) _____

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
9/82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Special Resource Management Inc.

Address 200 N 4th St. Ste 206 Boise IDAHO

Owner's Permit No. 63-87-2-082

2. NATURE OF WORK

☑ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☑ Other Monitoring (specify type)

4. METHOD DRILLED

☑ Rotary ☑ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☑ Steel ☐ Concrete ☑ Other PVC

Thickness		Diameter		From		To	
0.25	inches	4"	inches	+ 0	feet	20	feet
	inches		inches		feet		feet
Sch. 40	inches	2"	inches	0	feet	43	feet
	inches		inches		feet		feet

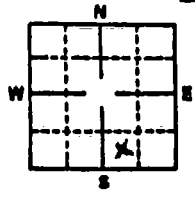
Was casing drive shoe used? ☑ Yes ☐ No
Was a packer or seal used? ☑ Yes ☐ No
Perforated? ☐ Yes ☑ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ____ inches by ____ inches

Number		From		To	
	perforations		feet		feet
	perforations		feet		feet
	perforations		feet		feet

Well screen installed? ☑ Yes ☐ No
Manufacturer's name Hydrophilic
Type PVC Model No. —
Diameter 2" Slot size .02 Set from 23 feet to 38 feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☑ Yes ☐ No ☐ Size of gravel Sand #2
Placed from ___ feet to ___ feet
Surface seal depth 18 Material used in seal: ☐ Cement grout
☑ Bentonite ☐ Puddling clay ☐ ___
Sealing procedure used: ☑ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☑ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port None

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name ___
Lot No. ___ Block No. ___
County Ada
SW ¼ SE ¼ Sec. 12, T. 3 N/S. R. 1 E/W.

7. WATER LEVEL

Static water level 11.2 feet below land surface.
Flowing? ☐ Yes ☑ No G.P.M. flow ___
Artesian closed-in pressure ___ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ___ °F. Quality ___
Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Air ☐ Other ___

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG #11

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
4"	0	4	Sandy Silt		✓
4"	4	11.2	Coarse Sand; gravel		✓
4"	11.2	20	Coarse Sand; Gravel	✓	
3"	20	35	Coarse Sand; Gravel	✓	
			2"-4" max.		
3"	35	43	Silt; Fine Sand		✓

10. Work started 12/4/87 finished 12/4/87

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Robert P Jones Co Firm No. 453
Address P.O. Box 336B, Boise, IDAHO Date 12/19/87
Signed by (Firm Official) R P Jones
and
(Operator) R P Jones

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

APPENDIX M

SURVEY LOCATIONS AND ELEVATIONS FOR MONITORING WELLS 1 THROUGH 17

HOSAC ENGINEERING, INC.
ENGINEERS PLANNERS SURVEYORS

2250 N. MERIDIAN RD. MERIDIAN, IDAHO 83642 PHONE (208) 888-5222

December 18, 1987

Brad Harr
Senior Client Service Representative
Special Resource Management, Inc.
200 North 4th Street - Suite 206
Boise, Idaho 83702

Re: Westpark Ground Water Monitoring Project

Dear Brad:

At your request, on Friday, December 18, 1987, our personnel conducted a field survey to determine and report the horizontal locations and elevations of each of the thirteen (13) monitoring wells installed by Special Resource Management, Inc. on the above-referenced property.

Please find enclosed the field survey data and reference site map for the Ground Water Monitoring Wells located on the subject property, located in the area of West Emerald Street and Milwaukee Street, Boise, Idaho.

Of the thirteen (13) wells surveyed, well numbers 1, 12, and 13 had not been installed. Our survey crew placed reference survey hub and tacks (2" x 2" x 6" wood stake) with a survey tack near the three sites and recorded the horizontal location and elevation of each. Well numbers 2 and 3 consisted of PVC stand pipes. The survey crew measured and recorded the horizontal location and elevation at the top of each of the PVC stand pipes. All remaining wells, numbers 4 through 11, consisted of steel-cased monitoring wells with concrete bases placed approximately one to two inches above existing ground. The survey crew measured horizontal locations and elevations at both the top of the steel casing and at the top of the concrete base.

Horizontal control for the well locations was established by tying the survey data to the boundary referenced on the site plan. The referenced bearing is indicated on the site plan as "Basis of Bearing". The referenced coordinate for the project is the intersection of West Emerald Street and Milwaukee Street (a found "PK nail"). Coordinates for this point were assigned North 5000.00, East 5000.00.

Elevations for the wells were established by referencing two benchmarks located on the subject site. The elevations of the benchmarks were reported as control for various engineering projects in the immediate vicinity, including the new Towne Square Mall.

Attached to this letter is a Site Plan and three Exhibits. The Site Plan includes the locations and identification of all wells on the site. Also on the map is a tabular listing of the wells and their horizontal locations and elevations. Exhibit No. 1 is an 8-1/2 x 11 vicinity map which also gives the approximate locations of each of the wells. Exhibit No. 2 is the same tabular data listed on the site map, and Exhibit No. 3 is a Radial Staking Report which ties all well locations to two reference corners by bearing and horizontal distance. The two reference corners were located and surveyed in the field and are also listed by horizontal coordinates on the Site Plan and on the enclosed Exhibits 2 and 3.

We appreciate this opportunity to be of service to you on this project. If you require added information or surveying on this or other projects in the area, please give us a call.

Sincerely,
Steven W. Hosac, P.E.

David G. Powell, E.I.T.
HOSAC ENGINEERING, INC.

Enclosures

DGP/ab
17:14

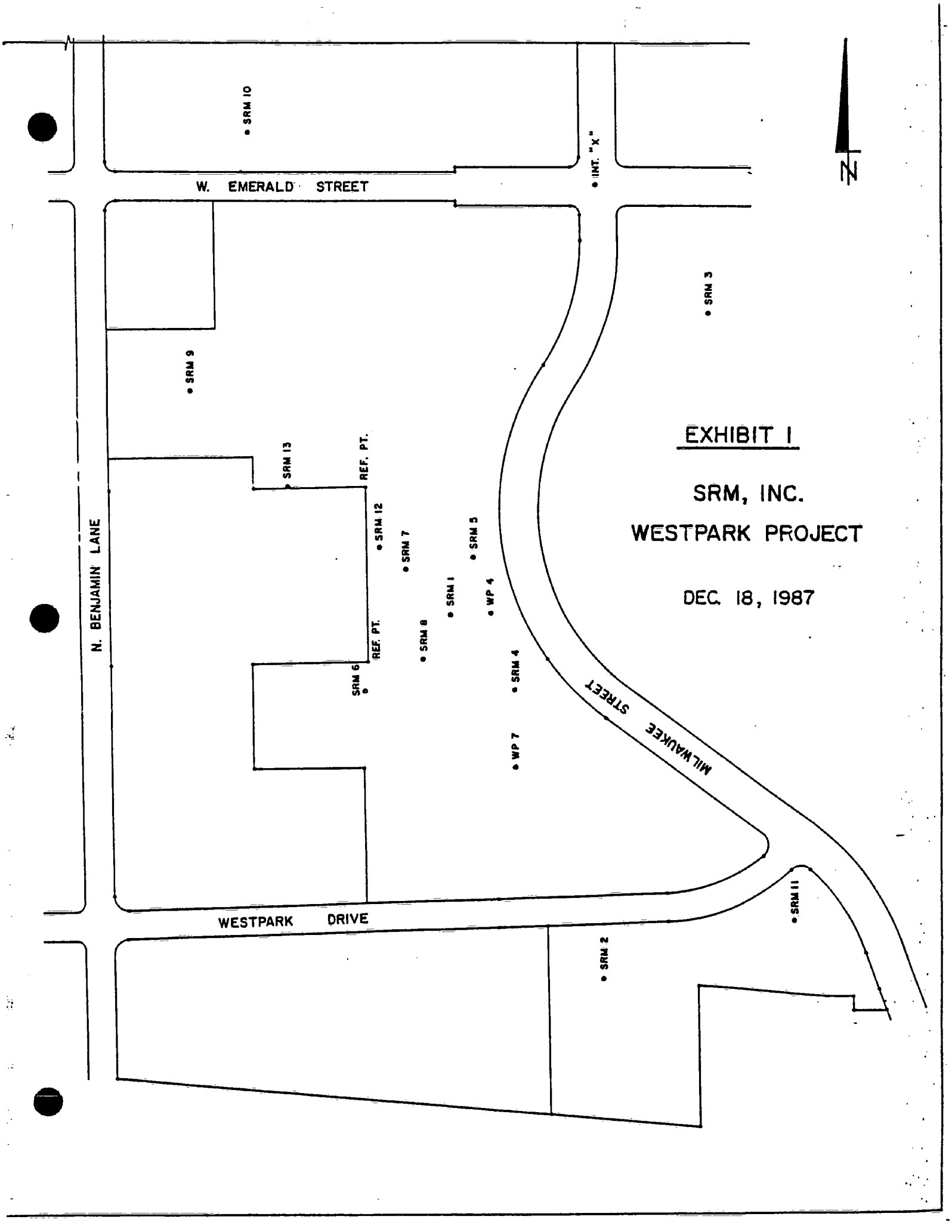

SRM 10
INT. "X"
W. EMERALD STREET
N
SRM 3
SRM 9
SRM 13
REF. PT.
SRM 12
SRM 7
SRM 5
SRM 1
WP 4
REF. PT.
SRM 8
SRM 6
SRM 4
WP 7
N. BENJAMIN LANE
MILWAUKEE STREET
WESTPARK DRIVE
SRM 11
SRM 2
EXHIBIT I
SRM, INC.
WESTPARK PROJECT
DEC. 18, 1987

EXHIBIT 2

MONITORING WELL LOCATION DATA
FOR
SPECIAL RESOURCE MANAGEMENT, INC.
WESTPARK GROUNDWATER MONITORING PROJECT

December 18, 1987

POINT No.	DESCRIPTION	NORTHING	EASTING	ELEVATION DATA		
				TOP STEEL WELL CASING	ADDITIONAL ELEV. & DESCR.	
1009	Emerald/Milwaukee Intx. (PK Nail)	5000.000	5000.000			
1038	Ref. Prop. Corner	4370.005	4509.480			
1043	Ref. Prop. Corner	4000.161	4512.078			
1000	WP-7 (Alum Cap)	3773.121	4810.291		2691.82	Bench Mark
1035	WP-4 (Alum Cap)	4639.435	4766.992		2691.13	Bench Mark
1105	SRM #1	3940.383	4816.443		2692.30	Ground Elevation (Tack & Hub)
1109	SRM #2	3328.467	4997.711		2695.97	Top PVC Stand Pipe
1100	SRM #3	4725.873	5238.789		2692.13	Top PVC Stand Pipe
1106	SRM #4	3940.383	4816.443	2694.47	2692.83	Top Conc. Base
1104	SRM #5	4219.986	4732.176	2694.04	2692.23	Top Conc. Base
1108	SRM #6	3937.636	4502.638	2691.83	2690.21	Top Conc. Base
1103	SRM #7	4194.208	4585.453	2694.00	2692.31	Top Conc. Base
1107	SRM #8	4004.350	4623.663	2694.12	2692.31	Top Conc. Base
1111	SRM #9	4574.310	4148.372	2691.48	2689.82	Top Conc. Base
1101	SRM #10	5117.692	4271.885	2690.64	2688.79	Top Conc. Base
1110	SRM #11	3448.165	5407.204	2696.56	2694.67	Top Conc. Base
1102	SRM #12	4239.911	4538.027		2691.23	Ground Elevation (Tack & Hub)
1112	SRM #13	4374.976	4346.695		2691.01	Ground Elevation (Tack & Hub)

HOSAC ENGINEERING, INC.
ENGINEERS PLANNERS SURVEYORS

PHONE (208) 888-5222

January 14, 1988

Brad Harr
Special Resource Management, Inc.
200 North 4th Street - Suite 206
Boise, Idaho 83702

Re: Westpark Groundwater Monitoring Project

Dear Brad:

At your request, on Wednesday, January 13, 1988, our personnel conducted additional field surveying to determine and report the horizontal locations and elevations of Well Numbers 14, 15, 16, and 17, on the above-referenced project.

The existing Monitoring Well Survey Map and Exhibit 1 Map compiled December, 1987, have been revised to include this well data. The maps have been further revised to show the approximate locations of existing structures, as requested.

Please find enclosed with this letter the revised Exhibit 1 (Vicinity Map), Exhibit 2 (Monitoring Well Location Data), Exhibit 3 (Radial Stakeout Report), and nine copies of the 24" x 36" Monitoring Well Survey Map.

We appreciate this opportunity to be of service to you on this project. If you require further assistance with this project, please give us a call.

Very truly yours,
Steven W. Hosac, P.E.

David G. Powell, E.I.T.
HOSAC ENGINEERING, INC.

Enclosures

DGP/ab
17:28

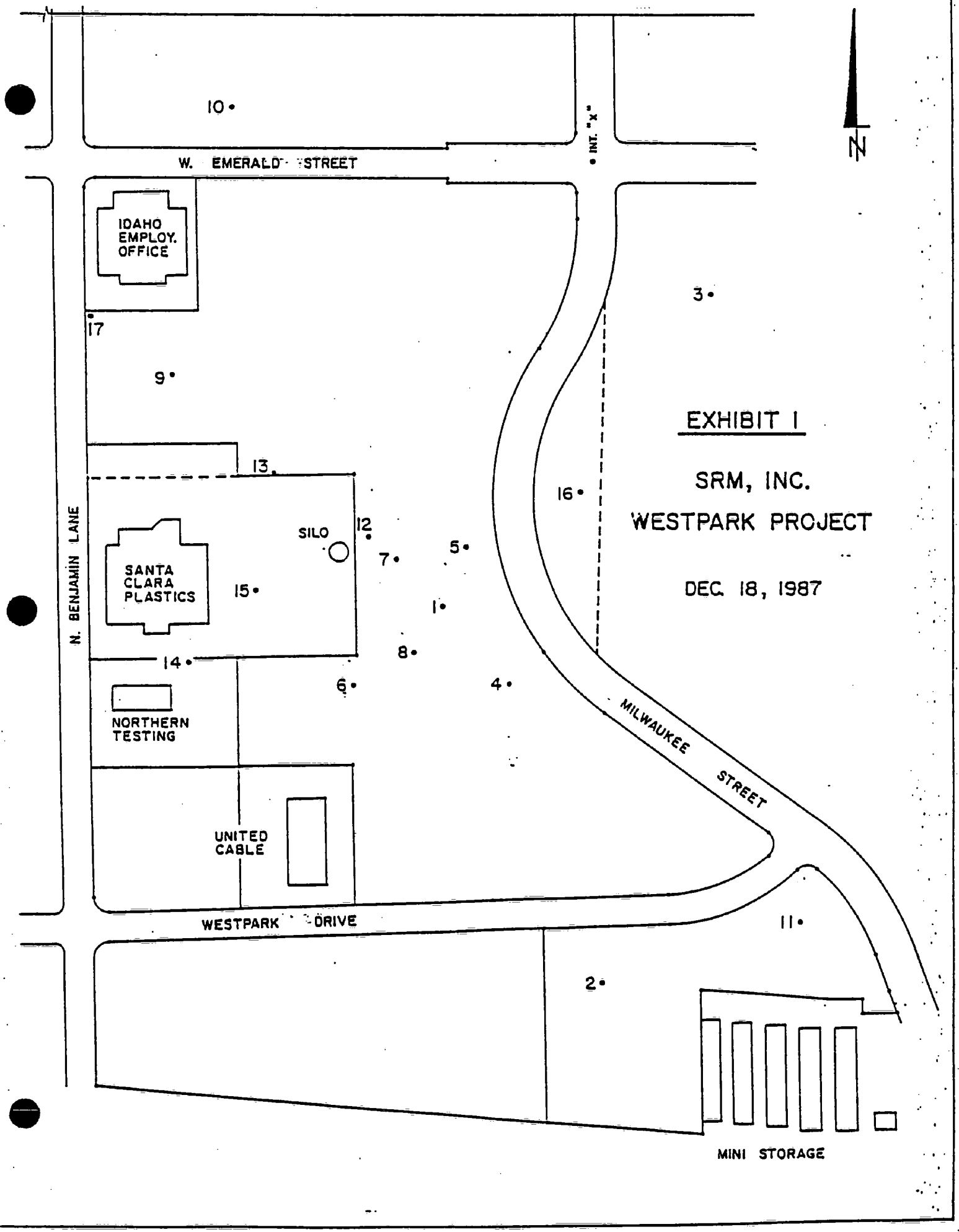

10
W. EMERALD STREET
INT. "X"
N
IDAHO EMPLOY. OFFICE
17
9
3
EXHIBIT I
SRM, INC.
WESTPARK PROJECT
DEC. 18, 1987
13
16
N. BENJAMIN LANE
SILO
12
SANTA CLARA PLASTICS
15
7
5
1
8
14
6
4
NORTHERN TESTING
MILWAUKEE STREET
UNITED CABLE
WESTPARK DRIVE
11
2
MINI STORAGE

EXHIBIT 2
MONITORING WELL LOCATION DATA
FOR
SPECIAL RESOURCE MANAGEMENT, INC.
WESTPARK GROUNDWATER MONITORING PROJECT

Revised January 14, 1988

POINT No.	DESCRIPTION	NORTHING	EASTING	ELEVATION DATA		
				TOP STEEL WELL CASING	ADDITIONAL ELEV. & DESCR.	
1009	Emerald/Milwaukee Intx. (PK Nail)	5000.000	5000.000			
1038	Ref. Prop. Corner	4370.005	4509.480			
1043	Ref. Prop. Corner	4000.161	4512.078			
1000	WP-7 (Alum Cap)	3773.121	4810.291		2691.82	Bench Mark
1035	WP-4 (Alum Cap)	4639.435	4766.992		2691.13	Bench Mark
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1108	SRM #6	3937.636	4502.638	2691.83	2690.21	Top Conc. Base
1103	SRM #7	4194.208	4585.453	2694.00	2692.31	Top Conc. Base
1107	SRM #8	4004.350	4623.663	2694.12	2692.31	Top Conc. Base
1111	SRM #9	4574.310	4148.372	2691.48	2689.82	Top Conc. Base
1101	SRM #10	5117.692	4271.885	2690.64	2688.79	Top Conc. Base
1110	SRM #11	3448.165	5407.204	2696.56	2694.67	Top Conc. Base
1102	SRM #12	4239.911	4538.027		2691.23	Ground Elevation (Tack & Hub)
1112	SRM #13	4374.976	4346.695		2691.01	Ground Elevation (Tack & Hub)
1077	SRM #14	3983.157	4173.204	2692.43	2690.48	Top Conc. Base
1076	SRM #15	4128.191	4307.839	2693.70	2691.80	Top Conc. Base
1080	SRM #16	4332.834	4963.077	2693.50	2691.51	Top Conc. Base
1082	SRM #17	4692.866	3981.162	2690.99	2689.03	Top Conc. Base

EXHIBIT 3
RADIAL STAKEOUT REPORT
FOR
SPECIAL RESOURCE MANAGEMENT, INC.
WESTPARK GROUNDWATER MONITORING PROJECT

Revised January 14, 1988

RADIAL STAKEOUT

FROM	BEARING/ANGLE	DISTANCE	TO	NORTH	EAST	ELEV
FROM POINT # [,BACKSIGHT POINT #] : 1038,1043						
			1043	4000.1613	4512.0779	
			PROP COR			
			1038	4370.0055	4509.4804	
			PROP COR			

BS SE 0 24'09"
STAKE POINTS IN SET # : -1
ENTER POINTS IN SET, SEPARATED BY A COMMA : 1000,1035,1009,1100-1112,1076,1077,1080,1082
SET #-1

1038	SE	26 44'48"	668.40	1000	3773.1210	4810.2910	2691.8200
				WPK-7			
1038	NE	43 42'16"	372.70	1035	4639.4350	4766.9917	2691.1300
				WPK-4			
1038	NE	37 54'17"	798.44	1009	5000.0002	4999.9996	
				CL CL			
1038	NE	63 59'23"	811.50	1100	4725.8732	5238.7888	2692.1300
				SRM 3			
1038	NW	17 37'44"	784.53	1101	5117.6919	4271.8850	2688.7900
				SRM 10			
1038	SE	12 22'35"	133.19	1102	4239.9113	4538.0272	2691.2300
				SRM 12			
1038	SE	23 22'20"	191.51	1103	4194.2084	4585.4533	2692.3100
				SRM 7			
1038	SE	56 02'01"	268.51	1104	4219.9855	4732.1757	2692.2300
				SRM 5			
1038	SE	32 29'02"	322.40	1105	4098.0467	4682.6297	2692.3000
				SRM 1			
1038	SE	35 32'44"	528.02	1106	3940.3827	4816.4428	2692.8300
				SRM 4			
1038	SE	17 20'31"	383.07	1107	4004.3498	4623.6631	2692.3100
				SRM 8			
1038	SW	0 54'24"	432.42	1108	3937.6357	4502.6378	2690.2100
				SRM 6			
1038	SE	25 06'55"	1150.29	1109	3328.4671	4997.7113	2695.9700
				SRM 2			
1038	SE	44 14'26"	1286.74	1110	3448.1647	5407.2041	2694.6700
				SRM 11			
1038	NW	60 30'00"	414.90	1111	4574.3104	4148.3716	2689.8200
				SRM 9			
1038	NW	88 15'04"	162.86	1112	4374.9760	4346.6949	2691.0100
				SRM 13			
1038	SW	39 49'25"	314.85	1076	4128.1909	4307.8391	
				SRM 15			
1038	SW	40 59'58"	512.58	1077	3983.1567	4173.2043	
				SRM 14			
1038	SE	85 18'54"	455.12	1080	4332.8336	4963.0765	
				SRM 16			
1038	NW	58 34'14"	619.16	1082	4692.8663	3981.1624	
				SRM 17			

EXHIBIT 3
RADIAL STAKEOUT REPORT
FOR
SPECIAL RESOURCE MANAGEMENT, INC.
WESTPARK GROUNDWATER MONITORING PROJECT

December 18, 1987

RADIAL STAKEOUT

FROM	BEARING/ANGLE	DISTANCE	TO	NORTH	EAST	ELEV
FROM POINT # 1,BACKSIGHT POINT #1 : 1038,1043						
			1043	4000.161	4512.078	
			PROP COR			
			1038	4370.005	4509.480	
			PROP COR			
BS	SE 0 24'09"					
STAKE POINTS IN SET # : -1						
ENTER POINTS IN SET, SEPARATED BY A COMMA : 1000,1035,1009,1100-1112						
SET #-1						
1038	SE 26 44'48"	666.40	1000	3773.121	4810.291	2691.820
			WPK-7			
1038	NE 43 42'16"	372.70	1035	4639.435	4766.992	2691.130
			WPK-4			
1038	NE 37 54'17"	796.44	1009	5000.000	5000.000	
			CL CL			
1038	NE 63 58'23"	811.50	1100	4725.873	5238.789	2692.130
			SRM 3			
1038	NW 17 37'44"	784.53	1101	5117.692	4271.885	2688.790
			SRM 10			
1038	SE 12 22'35"	133.19	1102	4239.911	4538.027	2691.230
			SRM 12			
1038	SE 23 22'20"	191.51	1103	4154.208	4585.453	2692.310
			SRM 7			
1038	SE 56 02'01"	268.51	1104	4219.986	4732.176	2692.230
			SRM 5			
1038	SE 32 29'02"	322.40	1105	4098.047	4682.630	2692.300
			SRM 1			
1038	SE 35 32'44"	528.02	1106	3940.383	4816.443	2692.830
			SRM 4			
1038	SE 17 20'31"	383.07	1107	4004.350	4623.663	2692.310
			SRM 8			
1038	SW 0 54'24"	432.42	1108	3937.636	4502.638	2690.210
			SRM 6			
1038	SE 25 06'55"	1150.29	1109	3328.467	4997.711	2695.970
			SRM 2			
1038	SE 44 14'26"	1286.74	1110	3448.165	5407.204	2694.670
			SRM 11			
1038	NW 60 30'00"	414.90	1111	4574.310	4148.372	2689.820
			SRM 9			
1038	NW 88 15'04"	162.86	1112	4374.976	4346.695	2691.010
			SRM 13			